# REPORT RESUMES

ED 003 819 24

A PRELIMINARY STUDY OF THE STRUCTURE OF ENGLISH USED BY NEGRO AND PUERTO RICAN SPEAKERS IN NEW YORK CITY.

BY- LABOV, WILLIAM AND OTHERS

COLUMBIA UNIV., NEW YORK

REPORT NUMBER CRP-3091 PUB DATE 65

EDRS PRICE MF-$0.18 HC-$2.52 63P.

DESCRIPTORS- *LANGUAGE SKILLS, *STRUCTURAL ANALYSIS, *ORAL ENGLISH, *LANGUAGE PATTERNS, NEGRO, *ETHNIC GROUPS, LINGUISTICS, INTERVIEWS, TAPE RECORDINGS, NEW YORK CITY, NEW YORK

CERTAIN FUNDAMENTAL QUESTIONS ON DIFFERENCES IN LINGUISTIC STRUCTURE AND FUNCTION WERE STUDIED IN A PRELIMINARY PROJECT. DURING A 5-MONTH PERIOD, 75 EXPLORATORY AND 25 SUPPLEMENTARY TAPE INTERVIEWS WERE CONDUCTED. INDIVIDUAL AND GROUP INTERVIEWS WERE RECORDED FOR PREADOLESCENT, ADOLESCENT, AND ADULT NEGRO SUBJECTS. THE INTERVIEW SCHEDULE WAS DEVELOPED TO INCLUDE A FULL RANGE OF LINGUISTIC BEHAVIOR CHARACTERISTICS. ANALYSES INCLUDED ISOLATION OF THE CHIEF LINGUISTIC VARIABLES RESPONSIBLE FOR STRUCTURAL CONFLICT BETWEEN NONSTANDARD ENGLISH AND STANDARD ENGLISH. WITH THE SUGGESTION THAT THEY MIGHT SERVE TO DIRECT THE THINKING OF READING TEACHERS ALONG LINES WHICH HAVE BEEN IGNORED IN THE PAST, TENTATIVE CONCLUSIONS WERE PRESENTED ON THE (1) EFFECT OF FOLLOWING VOWELS IN REALIZING FINAL CONSONANTS, (2) INFORMATION PROVIDED BY FINAL CONSONANTS, (3) ANALYSIS OF ORAL READING, (4) TESTING OF PERCEPTUAL ABILITY, AND (5) BEST GRAMMAR TO TEACH. (RS)

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education
This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated do not necessarily represent official Office of Education position or policy.

# A PRELIMINARY STUDY OF THE STRUCTURE OF ENGLISH USED BY NEGRO AND PUERTO RICAN SPEAKERS IN NEW YORK CITY

Cooperative Research Project No. 3091

William Labov, Paul Cohen and Clarence Robins

Columbia University

New York City

1965

The research reported herein was supported by the Cooperative Research Program of the Office of Education, U.S. Department of Health, Education and Welfare.

ED003819

## TABLE OF CONTENTS

Section Page

4. The Problem: Failure of Urban Children to Acquire the Use of Standard English. . . . . . . . . . . . . . . . . . 4

5. Objectives of this Preliminary Study . . . . . . . . . . . . 6

6. Related Research . . . . . . . . . . . . . . . . . . . . . . 6

7. Procedures . . . . . . . . . . . . . . . . . . . . . . . . . 11

8. Analyses of the Data and Findings . . . . . . . . . . . . . 27

9. Conclusions and Implications . . . . . . . . . . . . . . . . 52

## TABLES AND FIGURES

**Table** **Page**

1 (A) PERCENTAGE OF LOWER EAST SIDE SUBJECTS USING NON-STANDARD GRAMMATICAL FORMS . . . . . . . . . . . 10
(B) TOTAL INSTANCES OF PERSON-NUMBER DISAGREEMENT. . . . . . 10
2 SIMPLIFICATION OF CONSONANT CLUSTERS FOR BF AND AO. . . . . . 37
3 OVERALL CONSONANT CLUSTER SIMPLIFICATION FOR DR . . . . . . . 40
4 EFFECT OF A FOLLOWING VOWEL UPON SIMPLIFICATION OF (st) AND (ts) . . . . . . . . . . . . . . . . . . . 42
5 MEAN INDEX VALUES FOR THE THUNDERBIRDS IN GROUP INTERACTION, SINGLE INTERVIEWS AND READING STYLE . . . . . . . . . . 46

**Figure**

1 TRANSCRIPTION CHART OF PHONOLOGICAL VARIABLES FOR ONE PRE-ADOLESCENT SPEAKER IN GROUP INTERACTION AND SINGLE INTERVIEW . . . . . . . . . . . . . . . . . . . . 29a

## 4. The problem: Failure of urban children to acquire the use of standard English.

This research is designed to help solve an over-all problem of growing importance: the failure of youth in urban centers to acquire the use of standard English. The most immediate and striking failure is in the inability of many school children to read--even in the fourth, fifth, sixth or seventh grades. A parallel failure of children to acquire the use of standard written and spoken English is part of the same problem, and is undoubtedly due to the same causes. The existing problem has important consequences in the educational failure of large numbers of youth; among the immediate effects of inability to read are the failure to complete high school, and to acquire the occupational skills that are needed in the urban job market.

The existence of the problem can be documented from many sources.[1] The data gathered in the course of this preliminary research project indicate that a very large portion of Negro boys in New York City do not know how to read in any significant sense of the term. Most of our fifth and sixth grade boys cannot read sentences at the second-grade level.

The principal problem in New York City concerns Negro and Puerto Rican youth. These groups are not the only ones that have reading problems--but they are the principal ethnic groups in the most depressed areas of most northern cities, and furthermore there are particular reasons why these groups do have special problems in acquiring the use of standard English. In analyzing the linguistic aspects of this problem, we can consider two entirely different types of underlying causes:

1. Structural conflict: the grammar and phonology used by these children may show systematic differences from standard English, and these systematic differences may cause interference in the learning of standard English. The problem here may be similar to the one which faces English speakers in learning a foreign language, or foreign immigrants in trying to learn English. In the case of the Puerto Rican group, Spanish is clearly a major source of such interference; in the case of the Negro group, the type of interference is much less obvious. No systematic studies have been made of the language of the Negro children, and most discussions are based upon folk literature, subjective impressions and social stereotypes. It is not sufficient to describe such an underlying structure by listing a few deviant phrases, or a few "mistakes" in pronunciation; to analyze this problem, it is necessary to have a systematic description of the sound pattern used by Negro children in the urban areas being studied, and also that portion of their grammar which deviates most from standard English.[2] However, the usual techniques for analyzing linguistic systems depend upon the existence of discrete and homogeneous structures. The speech of Negro adults and children in large cities shows tremendous variability, similar to that found in the sociolinguistic structure of New York City as a whole. It is necessary to use sociolinguistic methods which can cope with systematic variation of a continuous nature. Quantitative methods are needed, as well as the usual technique

of interviewing a few "typical" informants. Since there is no reason to believe that the population of Central Harlem is socially or geographically homogeneous, it will be necessary to obtain a reliable sample by the techniques of survey methodology.

The solution of these problems will require further progress towards the solution of certain problems of linguistic structure and linguistic evolution. The traditional conception of linguistic structure is that of a set of discrete categories which are essentially and entirely different from one another. To account within this frame of reference for the great variability found in the speech of Negro and Puerto Rican speakers in large cities, it would be necessary to resolve their speech patterns into a very large number of stylistic levels which succeed each other with great frequency and in an unpredictable manner. A more reasonable description will require a conception of linguistic structure which can take into account continuous ordered variation within and across discrete linguistic categories.[3] In addition to this problem of linguistic structure, there is a theoretical difficulty concerning the nature of linguistic differences. Chomsky[4] has suggested that most or all dialects of English show identical structure at the morphophonemic level--that is, at the level which corresponds most closely to the spelling system of English, and takes full account of the grammatical conditioning of word shapes. It is assumed by some that differences between dialects which can be described by "lower level rules" are somehow less significant or less difficult to overcome than differences at a higher level. The basis for this assumption is that differences in phrase structure of variables in the "deep structure" of a grammar correspond to differences in meaning, grammatical categories, or perhaps semantic intent, whereas lower level phonological rules affect nothing but the formal realization of these semantic units. If there is any foundation to this conception, it is all the more important to distinguish between phonological and grammatical rules as the basis for deviations from standard English. As our preliminary work indicates, these two types of rules may be involved in a cyclical interchange, where the gradual generalization of the phonological rule will lead to grammatical effects which in turn induce further changes in phonological rules. The specific manner in which these two sets of rules are interlocked is a theoretical problem of considerable interest. Finally, it will be necessary to substitute a more specific term for the vague concept of one dialect being "more different than" standard English than another dialect. It is necessary to investigate the relations between intelligibility of a dialect for speakers of another dialect, and a number of deviations from phonological and grammatical rules.

2. Functional conflict: in many cases there may be no direct structural conflict between standard English and the vernacular of Negro and Puerto Rican children. The children may be aware of the standard English forms, be able to perceive the difference between them and non-standard forms, and even be able to produce them at times. However, they may be unable to acquire the use of standard English because of a functional conflict: the fact that the values symbolized by standard

English are in direct conflict with the values symbolized by their own vernacular. Such conflicts may be well below the level of conscious attention; to isolate them, social attitudes must be measured, and correlated with linguistic behavior. Furthermore, it will be necessary to measure directly unconscious objective responses to particular features of language. To understand the concept of functional conflict, it is necessary to consider that language has many functions besides that of representing or referring to specific objects. There are non-cognitive functions as well--sometimes referred to as "expressive function," "directive function," "phatic communion,"[6] and so on. Such conflicts in non-cognitive function may be correlated with the contrast between lower class and middle class culture, between the manners acceptable in the home and those in the school, between the unconscious identification with a group and conscious endorsement of middle class values.

The question of a conflict of values may be illustrated by a puzzling contradiction which recurs continually in relation to the acquisition of standard speech: why is it that children who are exposed to the standard English of the English teacher for twelve years, are frequently unable to imitate this style of speech even for a few minutes, when it is a direct advantage to do so? The amount of learning required to make this shift seems to be very little compared to the learning necessary to master the basic vernacular. If it is true, as Chomsky has suggested, that the difference between any two dialects of English may be represented by a relatively small set of lower level rules of grammar, it would be difficult to explain the over-all problem of failure to learn standard English from the limited structural conflict which seems to exist.

## 5. Objectives of this preliminary study.

The general aims of this study are: (a) to determine the socially significant variables in English structure which distinguish Negro and Puerto Rican speakers from the rest of the New York City speech community and (b) to define those structural and functional conflicts of the Negro and Puerto Rican vernaculars with standard English which may interfere with the acquisition of reading skills.

The immediate objectives of the proposed preliminary study are (a) to adapt the techniques of previous sociolinguistic studies of New York City speech to the study of Negro and Puerto Rican speech, particularly in relation to the acquisition of standard English, (b) to define the actual variables which will be used in further studies, and (c) to train interviewers and analysts to use these techniques and measure these variables. This preliminary study is being continued by a larger two-year study which is designed to accomplish the general aims stated above, and consider the application of these findings to the school situation.

## 6. Related research.

The over-all problem of low educational attainment is thoroughly documented in the Bureau of Labor Statistics' publication:

Income, Education and Unemployment in Neighborhoods.[6] Map 1 of this statistical summary shows a close correlation between census tracts with lower educational attainment and census tracts with low family income. Census tracts which fall in the lowest quartile of both characteristics are exclusively concentrated in two neighborhoods: the Lower East Side and Harlem; the great majority of the census tracts in these two neighborhoods show this combination of lowest educational and income levels.

The low level of educational achievement in New York City as a whole has recently been documented by the results of a large-scale testing program carried out in 1964.[7] The Metropolitan Reading Test was applied to pupils in the second through tenth grades, and the Iowa Achievement Tests to pupils in the fourth and sixth grades throughout New York City. Non-English speaking pupils who were in the early stages of learning English and mentally retarded children were not tested. Results showed that 53.9% of New York City students were below the national norm in the second grade; 55.1% in the third grade; 60.5% in the fourth grade; 55.9% in the fifth grade and 57.1% in the sixth grade. In arithmetic and work-study skills, New York City children were also below the national norm. The importance of reading is clear when it is considered that performance in arithmetic and work-study skills would not normally affect performance in reading, but defects in reading skills would seriously affect performance in these other areas. The reading skills of children in Harlem are undoubtedly much lower than performance in New York City as a whole, as indicated by the results of our own exploratory studies to be described below.

Many of the sociolinguistic techniques required for this study were developed in earlier studies of American English by W. Labov. The Lower East Side of New York City was the chief focus of a detailed sociolinguistic survey carried out in 1963-1964; the fullest report is in The Social Stratification of English in New York City;[8] summaries of various aspects of this work are given in other publications.[9]

In the Lower East Side Survey, the adult native speakers of English of that area were studied through a stratified random sample of 157 subjects, along with 58 children of the subjects. The major problem which was faced was the high degree of variability in the speech of New Yorkers. Four major dimensions of variation had to be isolated: stylistic variation, socio-economic variation, ethnic variation, and variation through age levels of the population. All of these types of variation exist in the Negro and Puerto Rican populations to be studied in the present research, and one of the tasks of this preliminary research project was to adapt the techniques of the Lower East Side Survey to the population now being considered.

a. Stylistic variation. The major difficulty in isolating coherent linguistic structure of New Yorkers is that speakers shift their style radically according to the situational context, the topic, and the relation between speaker and listener. The speech patterns which are socially appropriate for an interview situation are those which may be designated careful speech. It is not difficult to shift the speaker's style towards the more formal end of the spectrum by giving him such formal tasks as reading of texts, reading of isolated word lists, and the pronunciation of minimal pairs which differ only by the particular variable in question--such as God-guard, or pin-pen. It is much more difficult to isolate a more casual, spontaneous or intimate style of speech which is not as appropriate for the interview situation. Yet this casual style is the most important for our systematic analysis of linguistic structure.[10] The interview was constructed around five contextual situations which were apt to elicit spontaneous speech. In these situations, the speaker was apt to disregard the constraints of the interview situation because of his emotional involvement in the topic, because of the style required for the topic, or because of the suggestion that the interview situation was no longer applicable. An utterance was marked as casual speech if in any one of these five contextual situations, contrastive channel cues were observed: changes in pitch, tempo, volume, breathing, or the occurrence of laughter. As a result of this analysis, it was found that the vast majority of New Yorkers showed a regular pattern of stylistic stratification, shifting in their linguistic behavior sequence from casual speech to the most formal style.

The five principal variables in which this stratification appeared were: (th), the form of the initial consonant in thing, through etc.; (dh), the corresponding voiced consonant of this, then, etc.; (r), the occurrence of constricted [r] in final and pre-consonantal position in car, bear, bored, etc.; (eh), the height of the vowel in bad, ask, dance, etc.; and (oh), the height of the vowel in lost, off, talk, etc.

b. Socio-economic stratification. This dimension was analyzed by the use of a stratified random sample of the population which had been constructed for previous sociological survey by Mobilization for Youth. Ethnic stratification and age grading were analyzed through the same sample. More recently, the sample has been analyzed further by considering the social mobility of the speakers--their past history of upward or downward movement in the occupational scale.[11] In all these variables, a regular pattern of socio-economic and ethnic stratification was found for the great majority of New Yorkers, with all sections of the population showing the same direction of stylistic shift in their use of the linguistic variables.

c. Subjective reactions to speech. Not only did New Yorkers show the same direction of shift in their behavior, but they also recognized the same norms of correctness as shown by tests of the informants' unconscious subjective reactions to these variables in the speech of others. The systematic differences which existed in the level of speech performance were correlated with near-unanimity in subjective reactions to speech. Furthermore, it was found that there was a regular process of acculturation to these norms in the children of informants. In all class levels, children showed a regular increase in the recognition of these speech values with age, but children of lower class and working class households lagged far behind the children of middle class households.[12]

d. *Relative position of Negro speakers*. In the first three of the phonological variables, Negro speakers of New York City showed the same patterns as white speakers. But there were also significant differences in the behavior of Negro people. The last two variables mentioned, (eh) and (oh), were not at all relevant to the speech of most Negro subjects. Furthermore, there was a great difference among Negro people in the overt set of values expressed towards speech. Whereas all the Negro adults of the sample seemed to participate in the same sociolinguistic structure as the rest of the population, many of the Negro youths seem to be moving in a different direction along with many Puerto Ricans and lower class white youth. Among all the Negro adults, there was general agreement that southern speech characteristics were "rough" and uncultivated as compared to northern speech. Yet it is said that there has been a rapid increase in the use of non-standard forms of southern Negro speech among young people in recent years: in part this may be due to the influx of Negroes raised in the South, but this trend may also reflect a reversal of the value system held by the older generation, and thus symbolize a rebellion against middle class norms.

In many respects, the Negro subject showed a far greater degree of deviation from standard English than did any of the white subjects. As far as the variable (r) is concerned, Negro subjects show a much higher degree of "r-lessness" than white subjects. Where most New Yorkers use [r] in intervocalic position, such as *four o'clock*, Negro speakers most often do not. This indicates a drastic difference in morphophonemic structure of the lexicon, since for a white New Yorker the word *car* has an abstract structure quite close to the spelling, for a Negro speaker the word may actually be represented by //ka//. Furthermore, many Negro speakers delete intervocalic //r// in their speech even within morpheme boundaries, so that *Carol* and *Cal* may be homonymous.

The total deviations of the Negro speakers in the Lower East Side survey from the grammatical patterns of standard English were of a much higher degree of magnitude than those of white speakers. Table 1 shows the socio-economic distribution of these deviations for Negro and white speakers, using a gross index of grammatical deviations. It is apparent that a much higher percentage of Negro speakers showed such deviations, and furthermore those who did so showed a much higher frequency of the non-standard forms. It is therefore unlikely that these deviations can be treated successfully as "mistakes", or as minor incursions from other dialects. It is much more likely that there are systematic differences in the rules covering the speech of Negro subjects, and one task of the current project is to isolate and specify these rules. Similar considerations apply to the study of speech of Puerto Rican subjects.

There are several earlier studies of Negro speech which suggest deep-seated differences in grammatical structure. Some of this evidence is summarized by Melville J. Herskovitz in *The Myth of the Negro Past*.[13] Lorenzo Turner's work on *Africanisms in the Gullah Dialect*[14] points out parallels in a variety of African languages to characteristics of Negro

## TABLE 1

### (A) PERCENTAGE OF LOWER EAST SIDE SUBJECTS USING NON-STANDARD GRAMMATICAL FORMS

Socio-economic Class

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7-8 | 9 | All Classes |
|---|---|---|---|---|---|---|---|---|---|---|
| **All Subjects** | | | | | | | | | | |
| **Double Negative** | 100 | 78 | 70 | 44 | 00 | 20 | 00 | 09 | 00 | 32 |
| **Non-standard Preterites** | 16 | 45 | 40 | 37 | 31 | 20 | 00 | 00 | 08 | 23 |
| **Person-Number Disagreement** | 16 | 56 | 60 | 44 | 38 | 40 | 09 | 00 | 00 | 29 |
| **[N:** | 6 | 9 | 10 | 16 | 13 | 5 | 11 | 11 | 12 | 93] |
| **Negro Subjects Only** | | | | | | | | | | |
| **Double Negative** | 33 | 50 | 75 | 84 | 29 | 60 | 00 | 00 | 00 | 50 |
| **Non-standard Preterites** | 33 | 00 | 63 | 67 | 29 | 60 | 00 | 00 | 50 | 45 |
| **Person-Number Disagreement** | 67 | 100 | 50 | 100 | 43 | 100 | 100 | 00 | 00 | 70 |
| **[N:** | 3 | 2 | 8 | 6 | 7 | 5 | 1 | 2 | 2 | 36] |

### (B) TOTAL INSTANCES OF PERSON-NUMBER DISAGREEMENT

| | Number of Subjects | Number Showing Person-Number Disagreement | Total Number of Instances |
|---|---|---|---|
| **Subjects** | | | |
| **White** | 81 | 25 | 29 |
| **Negro** | 36 | 23 | 112 |

speech in the Sea Islands. Beryl Bailey has suggested that many of the deviations of Negro speech from standard English may reflect an underlying Creole grammar which may have been widely used throughout the United States.[15] On the other hand, there is a great deal of evidence to show that the chief variables of Negro speech may also be found in speech of white southerners; our own exploratory interviews in South Carolina have added evidence here. As noted above, Chomsky has suggested on theoretical grounds, that most dialects of English will be quite similar except for relatively low level phonological and morphological rules. The present study is not biased towards either of these theoretical preconceptions, but is devoted towards elucidating the specific phonological and grammatical differences between speech systems in New York City, through the systematic study of linguistic variation.

The work of Gumperz[16] with small groups is of particular importance in approaching the problem of the mechanism of linguistic stratification. In India and in Norway, Gumperz developed methods of studying the speech of small groups, forming both closed and open networks. These techniques are being developed and applied to the study of group and individual contrasts in language behavior in the present research project.

## 7. Procedures.

In this preliminary five-month's period, seventy-five exploratory interviews have been conducted in Harlem, and twenty-five supplementary interviews in Cleveland, Philadelphia, and St. Helena Island, South Carolina.[17]

In this section, the methods for gathering data will be discussed, including techniques used by the interviewer, and the actual interview schedules.

### A. Interviewer techniques.

In the Lower East Side Survey, it was found that the major technical problem was to elicit casual speech in an interview situation where careful speech was appropriate. This problem assumes even greater importance in Central Harlem, or in the rural South, where the response of an informant may be radically different from one situation to another, depending on whether he views the interviewer as a teacher, a social worker, an unidentified stranger, a white man or a Negro--and depending on the physical surroundings, or who else is present. All these factors take precedence and dominate any mitigating effects produced by the skill of the interviewer.

Thus we found, for example, that individual interviews between ten-year old Negro boys and an adult (white or Negro) carried out in an empty classroom,[18] were dominated by the model of the teacher-student relationship. The vocal style and type of response in such a situation is remote from that used on the streets, and no manipulation of topic or interview schedule can alter this significantly.

If, however, we attempt to use the excited, spontaneous speech of boys playing without external controls, we find that this anonymous record of superposed voices at variable distances is of little value for linguistic analysis. Any degree of distortion in the tape recording (and losses due to distance from the microphone) will throw serious doubt on the validity of a grammatical transcription, and any doubt about the identification of individual voices makes quantitative analysis impossible.

This contradiction dominates the problem of interviewer technique. It is most severe in interviews with pre-adolescent youngsters, and it is in this area that we have made the greatest efforts towards a solution. The following section outlines the progress that has been made:

(1) Exploratory interviews with pre-adolescent boys. The greatest number of new developments in interviewer techniques occurred in work with pre-adolescent boys in Central Harlem. The first series of exploratory interviews was conducted in June, before the summer day camps had begun. It was found that the city parks were an effective location for interviewing boys ten to fourteen years old, although it was impossible to do any type of random selection in such locations. Recording conditions in the open air were generally good, and in some of these locations traffic noise was at a minimum. A series of six interviews were carried out in Morningside Park at 116th Street. This is one of the areas in Harlem which has a fairly substantial working class population, (as opposed to lower class). Informants were selected from boys passing the park on their way home from school in the afternoon. In this situation it was natural that we would encounter primary groups; in the interviews, there was a great deal of active participation of the groups as a whole--shouting, singing, free use of insults and taboo language, and other signs which indicate a level of spontaneous speech free from the constraints appropriate to individual interview situations. In such situations, it is difficult to carry out any type of structured interviewing, since the interviewer does not have control over the direction of the topic. The interviewer with a tape recorder becomes a focus of such great interest that it is difficult to control the size of the group. The result is an amorphous collection of individual fragments; similar problems have occurred with groups of children on the Lower East Side, in Chicago, and elsewhere. In order to preserve the values of group participation, and to explore further the relationships between group and individual behavior, a more elaborate procedure of split interviews was developed. Two interviewers, each carrying a battery-operated tape recorder, were stationed in an outdoor park. When a group of boys was contacted, one of the interviewers selected one of the boys for an individual interview. The rest of the group was held by the second interviewer who used a form of the group interview schedule Q-HAR-PAG (see below). The individual interview was an abbreviated form of the individual schedule Q-HAR-PA (see below); this was terminated after about twenty minutes, the individual returned to the group, and a second individual selected for further individual discussion. In this fashion, it was possible to record the speech of two individuals, comparing their performance in

isolation and in their natural group setting.

The split interview technique offers many advantages in the exploration of group-vs.-individual behavior, and it will be utilized more thoroughly in the spring of 1966. The technique was discontinued in August and September, since the many summer recreation programs in Harlem all but emptied the public parks of boys in this age range.

Of the various summer program, the most extensive was conducted by the Board of Education--a series of "Vacation Day Camps" throughout the city. There were 22 such centers in Central Harlem alone. This network of day camps involved from 3,000 to 4,000 of the approximately 5,000 boys 10-12 years old in Central Harlem, and provided a better basis for a systematic sample than the streets of Harlem.[19] A series of 52 individual interviews was carried out in August and September of 1965, using the same geographic distribution of informants as in the HARYOU-ACT Adolescent Survey completed in the spring of 1965.[20] Thus these exploratory interviews provided a geographic sample of Harlem Youth involved in the summer day program. The program itself gave a distinct bias of selection towards those boys who were most likely to be involved in organized activity; in most cases, boys were enrolled in the program through voluntary activity of the adult family.[21] The series of summer interviews with pre-adolescent boys was therefore considered preliminary to a random sample based on dwelling units, and provided a geographic overview of the range of behavior involved.

A small number of group interviews were carried out at the day camps. However, it was found that the environment was not suitable for the freest kind of group interaction. In order to explore group behavior in depth, and study the spontaneous speech of boys without distortion, one recreation center was selected for detailed exploration of the primary groups operating within it.

(2) Detailed study of primary groups. Simultaneously with the individual interview program, we began a larger series of interviews at the Stephen Foster Recreation Center, 116th Street and Lexington Avenue.[22] In this series we obtained a much greater amount of information about the individual boys before we interviewed them from the various adult counselors at the center; moreover, as a result of our explorations of group structure, we were able to learn more about the groups as we progressed.

In the course of a number of individual interviews, Mr. Robins outlined the structure of several primary groups; two such groups, the "Thunderbirds" and the "Aces" were the subject of intensive study. Five members of the first group were interviewed individually by Mr. Robins at the Stephen Foster Center. From the information gathered in these interviews, we reconstructed a first hypothesis about the structure and membership of the "Thunderbirds." Through the two leaders of the group, the Thunderbirds were gathered for an all-day outing in New Jersey. Free conversation was recorded in the car going and returning, at the camp site, and in an informal group interview [Q-HAR-PAG: see below]. The results of these recordings showed that the voice qualifiers, tempos, and other markers of careful speech which were present in individual interviews had disappeared entirely --- replaced by loud, excited, spontaneous behavior which marked a radical departure from the previous recordings. Though these interviews provided valuable data on the range of behavior to be studied, it was found impossible to isolate the utterances of individuals in a reliable manner. All of these individuals were recorded singly, either before or after the group session; but even with the help of a key tape of voice samples edited from these interviews, a great many speakers on the group interviews could not be identified with certainty. Moreover, the members of the Thunderbirds themselves were not able to identify these voices when the tape was played back for them, and they made more obvious errors than the investigators.

The next step in this development of technique was carried out by inviting five members of the Thunderbirds to the offices of the research project, for the purpose of recording group singing, eating and drinking. First the group was recorded candidly for twenty minutes as they played the complex game of skelley on the floor of an empty office. Then the boys were gathered for a group discussion. A single omnidirectional condenser microphone was placed in the center of the group.[23] Each boy also had a lavaliere microphone hanging around his neck, about six inches from his mouth, and each of these were connected to separate tracks; altogether eight tape recorders were utilized. The discussion followed alternate lines of Q-HAR-PAG (see below), with strong emphasis on the history of the group, group fighting, sounding (ritual insults), with sections of serious discussion at the end. The resultant set of eight tapes was a record of the speech of the group as a whole, and of each individual participating in the group. The individual tracks gave us absolute certainty in the identification of speakers, and the group tape yielded a record of how much speech was audible to the group as a whole. The slightest sound made by each individual was magnified on his own tape by a large power factor in comparison to the speech of everyone else, though neighboring voices can still be identified. A comparison of the linguistic variables in this group interview, carried out at a high level of spontaneity, and the individual interviews with the same members, serves as a means of calibrating the effect of contextual style on grammatical and phonological rules for the entire series of individual interviews.

Moreover, the transcribed results of the second Thunderbirds interview showed that there were phenomena in such group discussions which had never been observed before.

a. There was far more speech taking place in such a situation than could be observed in the best type of group recording. In many cases it was found that boys were talking, or even humming or singing, making derogatory comments or conducting side conversations which were inaudible from the stand point of the group as a whole. Such speech may indeed be inaudible to most listeners on the scene; we have a phenomenon here which may be described as "private speech in public". Under the cover of a high level of group activity, the individual is much freer to express his feelings than he would be in any face-to-face situation.

b. Several followers among the group were observed to respond directly and immediately to one particular leader of the group, and not directly to anyone else. Many "echoic" responses of such followers had never been detected before. Similarly, it was possible to observe the means used by leaders to exert verbal control over their followers.

Following the group interview, those individual members of the group who had not been interviewed before were interviewed individually. Thus the general paradigm for this type of work provides comparisons of group behavior and individual behavior in two manners: in the first case, the careful speech of the individual interview is uninfluenced by the familiarity developed in the group interview; in the second case, speech in the individual is less careful, because the group interview has preceded it. A second sequence of individual-group interviews was completed with another primary group participating in the Stephen Foster Center--the Aces.

It is proposed that this technique be applied to adult and teenage subjects as well as pre-adolescent boys, so that the effects of group behavior upon linguistic behavior can be studied in detail. Since the most spontaneous kind of language is used in the group situation, with the least constraints from the interview situation, it will be possible to calibrate the stylistic level of individual interviews against the group interview, and therefore determine precisely which linguistic variables are affected by the constraints of the interview situation, and to what extent they are affected. For any variable where the difference between individual and group performance is minimal, it will be possible to use the results of a random sample of individual samples to draw conclusions about the speech structure of the community as a whole. For those variables which show a marked difference between individual and group behavior, it will be necessary to extrapolate by inference to the linguistic performance of the community as a whole, since it is not possible to sample all the groups of the community, nor to avoid a bias of selection in setting up group interviews.

(3) Verbal style of the interviewer. In many formal situations, pre-adolescent children tend to identify the interviewer with a teacher. To obtain the greatest volume of speech and the closest approach to casual style, it is necessary for the interviewer to depart as much as possible from verbal style associated with education. The questions of the interview procedures are therefore phrased in the most

informal colloquial style possible, and the interviewers concentrate upon developing the use of non-standard and eliptical phrases in short questions. The precise details of the use of slang and taboo words in questions cannot be specified for all interviewers, in interview procedure, because they depend upon the relationship between the subject and the interviewer. In general, it is necessary to introduce taboo words into the discussion in order to allow the speaker himself to use taboo words. In the first group interview with the Thunderbirds, the maximum degree of spontaneity was reached when the subjects were allowed to tell jokes and use expressions which would normally be taboo in school. The use of a single taboo word was seen to produce a sudden increase in the pitch, volume, and length of speech. Normally, the presence of a tape recorder strongly inhibits the use of taboo words, and it is difficult to achieve this level of spontaneity.[24]

One of the greatest difficulties in developing consistent verbal style is that the colloquial style appropriate for a Negro interviewer is not the same colloquial style that is used by white interviewers. Since the basic techniques used here were developed by white interviewers, it is necessary for a Negro interviewer to develope a style and phraseology which is functionally equivalent, but which may differ in almost every detail. In the case of young adult and teen-age subjects, the use of cool or hip style of interviewing must be developed further as an independent problem.

The relative effectiveness of Negro and white interviewers has been investigated to some extent. A large number of pre-adolescent interviews were conducted by both white and Negro interviewers. In this case, it appeared that the use of an effective colloquial style is a more important factor than the ethnic background of the interviewer. When a Negro interviewer used a relatively formal approach, he was identified as a teacher by the subjects, with consequent repression of the volume and stylistic level of speech. White interviewers, such as P. Cohen and J. Waletzky, who could shift their verbal style easily to the level of nonstandard (white) New York City speech, seemed to be able to achieve a greater volume of response and a wider range of speech from children of these ages. In the case of older Negro subjects, there appear to be cases where differences in ethnic background of the interviewer had a minimal effect. One split interview conducted with a middle-aged Negro woman raised in the south, showed no observable change in speech behavior by the subject in response to a Negro as against a white interviewer. However, in the case of older teen-age boys and some adult male Negroes, there seems to be a strong advantage in the interviewer being a Negro. A wide range of nationalist, anti-white sentiments can be expressed in these interviews and it is doubtful whether the same expressions would be permitted with the white interviewer. It is easily apparent that a generalized hostility towards white people is increasing in Harlem. For example, it is not uncommon for white interviewers on the streets of Harlem to encounter open hostility: a passer-by shouting "Get out of here, whitie!", or a group of Negro adults gathering protectively at a point where white interviewers are talking to Negro children. At least a dozen such incidents have been recorded in the course of our exploratory work. Thus in many of the teen-age interviews and in some adult interviews, the subjects told stories which in all probability would not have been told to white interviewers.[25] It is still necessary to determine exactly which linguistic variables will shift in the presence of white and Negro interviewers, and therefore more split interviews will be carried out for this purpose in the future.

B. Interview schedules.

A considerable part of this research project was devoted to the development of interview schedules which would provide data on the full range of linguistic behavior characteristic of many different types of informants. Each question was designed to obtain more than one type of information. The following criteria were used in sensing the value of each question:

(1) Volume of speech. Questions are designed to obtain the largest volume of continuous speech from informants. In most cases the wording is aimed at encouraging casual and spontaneous speech; in some questions at the end of the interview, careful, relatively formal speech is the object. A number of questions are designed to obtain narratives from the speaker: oral versions of personal experience.

(2) Contextual style. As indicated above, many questions were designed to elicit a particular style. The net result of the interview would be to obtain good examples of the following types of speech from each informant:

citations of excited speech in narratives
quotations of songs, rhymes, and ritual insults
informal narrative style
statements of rules
definitions of abstract terms
serious conversation
reading of connected texts
reading pronunciation of isolated words

(3) Linguistic data. Many types of questions were designed to concentrate particular types of linguistic behavior--that is, the dependent variable in this case. Certain questions favored phonological forms which do not occur freely in conversation, such as the final cluster -ks in monomorphemic forms, which occurs frequently in the word box used in the description of the game skelley. Certain questions are designed to elicit syntactic forms which normally might not be used by a respondent: questions, commands, etc. In the preparation of reading texts, a great deal of attention is paid to the concentration of linguistic forms required for the analysis, without destroying the natural flow of speech.

(4) Demographic data. The essential data needed to characterize the position of the informant in the population as a whole is pro-

vided at many points of the interview. A number of questions are designed to elicit information on the socio-economic position of the speaker's family, age, history of residence, history of schooling, occupational history, and geographic history of the informant and his family.

(5) Interpersonal relations. At many points of the interview, information is obtained on relations between the informant, and other members of primary groups with which he is associated. Participation of various members of the family in joint activity, relations within the peer group, associations with other ethnic groups, all provide important independent variables for the explanation of linguistic behavior.

(6) Cultural variables. The interview schedules are designed to provide questions in all of the important "focal areas" of working class and lower class culture. Most of these themes have been described by Miller[26] in his study of lower class culture: 1) toughness, 2) smartness, 3) excitement, 4) trouble, 5) autonomy, and 6) fate. Two general themes of adolescent culture are also specified by Miller: 7) sex, and 8) belonging. The cultural matrix symbolized by 9) "cool" or "down" is an important theme in the Negro community. The relation of each group and individual to these themes is an essential aspect of research into the functional conflicts outlined above.

(7) Interest. Each question is also evaluated for the degree of interest shown by speakers. This factor is partly independent of the volume of speech elicited, and is an increasingly important consideration in the second half of the interview, where various devices must be used to reduce fatigue.

(8) Formal methods for adjustment of questions to responses. In this interview, a number of new devices were introduced to formalize the degree of flexibility and variability permitted in coping with the individual characteristics of the informants. Each section begins with a "0 question", designed to provide the proper setting for the topic, and determine whether the informant has any experience in this area. This question is obligatory in all interviews. The following subsidiary questions, listed as 1.1, 1.2. etc. (as shown in the following examples) are frequently marked by one of two symbols: an asterisk (*) indicating that the question provides essential information and must be asked, or an ampersand (&), indicating that the question is to be used only as an additional probe where sufficient volume of speech was not obtained, or where the informant has special or unusual information. Unmarked questions in this series are not obligatory, and may be dropped if the informant responds with a very large volume of speech for the "0" question, or if the interview has been quite long, or if the informant shows unusual fatigue.

Extract from Q-HAR-PA, Form III

II. Peer group

1. Group structure.

1.0. Is there a bunch of guys you always hang around with and do stuff with?
1.1. About how old are they?
*1.2. And you're [how old]...?
*1.3. Do any of the guys speak Spanish? [Who?]
*1.4. Are there any white [Negro] kids in your bunch?
&1.5. Let's see now, who are the guys in your bunch; it might be a good idea to get together with all of them one of these days... [obtain names and ages]

2. Fighting.

2.0. What kinds of things do fights usually start about around here?
*2.1. What are the rules for a fair fight?
2.2. What if you saw someone [kicking someone else on the ground, using a stick, etc.], and it was supposed to be a fair fight, what would you do?
&2.3. Did you ever see somebody get beat up real bad? What happened to him?
2.4. What was the most important fight you remember?
&2.5. Did you ever get into a fight with a guy that was bigger than you? What happened?
&2.6. How does a fight end? How do you know who won?
*2.7. Suppose someone is down, and he says "I give", can you turn your back on him without his jumping on you?
&2.8. Do guys around here usually fight one-against-one, or in gangs? [Is there any difference in what's considered fair?]

a. The pre-adolescent schedules. The pre-adolescent schedules were designed for Negro and Puerto Rican boys from ten to twelve years old.[27] The individual pre-adolescent schedule (Q-HAR-PA) begins with a short section on the geographic background of the speaker, and secures information on history of residence, trips outside the city, and the speaker's contacts with other languages. The first major section of the interview is concerned with Children's games. This section is based upon exploration of pre-adolescent folklore and customs in all of the various interviews carried on in New York City in the past few years. The most important questions concern the games of skelley and ringalivio (normally ringalicoco in Harlem.) The game of skelley or lodee is a local street game with intricate rules developed to an unusual degree. The ability to state these rules is often important factor in resolving arguments which arise in playing the game; certain of the rules are flexible enough to allow considerable negotiation in the course of the game. It is possible to differentiate sharply the cognitive and verbal development of various speakers by their descriptions of the game. The game of ringalicoco has many complex variants, and often leads to arguments and fights which are described in the course of the interview. Other questions in this section deal with various ball games, formal and informal (baseball, basketball, stickball, stoopball, punchball, Chinese handball) claiming words, counting-out rhymes; items which give us a good measure of the child's participation in the indigenous pre-adolescent culture of New York City.

One of the most important sections of the interview concerns Fighting. In this area we are much concerned with the rules for a fair fight, which define quite accurately the cultural matrix of toughness in which the child is operating, and the degree of violence with which he is familiar. The degree of elaboration of rules which restrict or control behavior are important indexes of the cohesion of the culture in which the child participates. Of the fifteen to twenty possible restrictions on fighting behavior, the child usually mentions those which are salient for his own group, and so indicates the focus of interest and the margins of possible behavior within the group. We also obtain a variety of narratives concerning fights, and the ritual customs which surround fighting. The actors who figure in the particular narratives about fighting also give us some indication of the interpersonal relations of the informant, and his own personal participation in the fighting culture.

The third section deals with the Peer Group. Here we obtained detailed information on the primary group with which the child is most intimately associated, and which is usually the most effective factor in the control of his linguistic behavior. The degree of cohesiveness in this group is indicated by answers to many questions, and the information is particularly valuable as a pre-condition for a successful approach to a pre-adolescent interview.

One type of linguistic data which occurs in the Peer Group section is extremely important: the child's pronunciation of a long list of proper names. The ability to convey phonemic information is here less dependent than usual on information provided by context and we obtain some of the best insights into the phonological system of the speaker.[28]

The following section of the pre-adolescent schedule obtains information on the Family Structure of the subject. It is designed to elicit the following information: for each adult in the family, the degree of participation in family life, occupation, and the amount of financial support provided. It is also important to determine the relative age of the child in the range of siblings in the home, and whether the dominant figure in disciplining the children is the father or the mother. The child's ability to pronounce proper names is also exhibited in this section of the interview.

The formal investigation of *Reading* and *Pronunciation of isolated words* is reserved for the last part of the interview. Because so many children hardly read at all, we first obtain some evidence of minimal ability by testing *pseudo-reading*. The child is handed a card with the numbers from *one* to *ten* typed out, and asked to "read the numbers from one to ten." If he is able to do this, he is then given a card with the days of the week typed out, but beginning with Tuesday, and he is asked to "read the days of the week."[29] If the child can manage the pseudo-reading, he is then given a series of nine short sentences, written at second grade or lower third grade level, as shown under "2. Standard Sentences" on the following page. In these sentences, we have concentrated all of the important linguistic variables which have been isolated in this research project. These features will be discussed individually below, but one most important innovation in this reading text may be noted here. In all of our research, we have in mind the problem of whether certain deviations from standard English represent differences in phonological or grammatical rules. The pronunciation of a word which is written *passed* as [pæs] may represent a phonological rule which simplifies final consonant clusters, or a grammatical rule which provides no overt realization of a past tense morpheme. These two alternatives lead to radically different solutions to the problem of teaching standard English. There are a number of indirect ways of solving this problem through the quantitative study of variation, as discussed in the next section. A direct attack on the problem can be made through sentences such as number 6 in the series shown here. If the informant reads the word passed as [pæs], he may or may not have understood the meaning of 'past' from the written signal *-ed*. However, his pronunciation of the word *read* as [rɛd] or [rid] will tell us whether he understood *-ed* as a past morpheme signal or not. The word *read* is a unique homograph for this purpose, and it is exploited in sentences 8 and 11 as well. It is also necessary to calibrate this test by finding out if the reader can understand such signals of the past as '*yesterday*' or signals of the present such as '*now*' and translate this understanding into appropriate pronunciations of *read*. Therefore sentences 3, 4, and 10 check these abilities of the reader.[30]

The next subdivision of the reading section is *Classroom correction*. This test is designed to determine which deviations from standard written English the informant can detect under the most formal conditions. The subject is given a sheet in which the following sentences are printed in eighteen-point primary type:

> I ate four apple.
> I met three mens.
> He pick me.
> He ain't gone yet.
> I've pass my test.
> He don't know nobody.
> He never play no more, man.
> The man from U.N.C.L.E. hate the guys from Thrush.
> Last week I kick Donald in the mouth, so the teacher
>      throwed me out the class.

Reading texts from Q-HAR-PA, Form III

V. Reading texts.

1. Pseudo-reading.

| Card 1 | Card 2 |
|---|---|
| one | Tuesday |
| two | Wednesday |
| three | Thursday |
| four | Friday |
| five | Saturday |
| six | Sunday |
| seven | Monday |
| eight | |
| nine | |
| ten | |

2. Standard sentences.

Card
3 Last month I read five books.
4 Tom read all the time.
5. So... I sold my soul to the devil.
6 When I passed by, I read the posters.
7 Don't you dare hit your dear little brother!
8 When I liked a story, I read every word.
9 They cost a nickel yesterday, but today they cost a dime.
10. Now I read and write better than Alfred does.
11. I looked for trouble when I read the news.

4. Word lists.

| Card | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|
| | hear | hot | feel | bat | white | father | every |
| | here | heart | field | bad | wide | brother | through |
| | hair | hard | call | back | time | this | throw |
| | bare | God | called | backed | Tom | then | front |
| | beer | oil | sold | bag | fine | there | from |
| | bear | ball | soul | bath | find | here | Carol |
| | shore | boil | morning | aunt | found | leave | purple |
| | sure | far | pass | act | pond | breathe | circle |
| | pour | fire | past | laugh | pork | breath | sir |
| | poor | all | passed | hand | storm | smooth | her |

5. Minimal pairs.

| Card | 19 | | 20 | |
|---|---|---|---|---|
| | here | hair | tin | ten |
| | bare | beer | called | call |
| | shore | sure | pass | passed |
| | poor | pour | find | fine |
| | oil | all | soul | sold |
| | deaf | death | dew | do |
| | Ruth | roof | | |
| | god | guard | | |
| | pen | pin | | |

The interviewer demonstrates the test procedure by drawing a circle around the ends of the two test sentences which begin the list to indicate the non-standard omission of /s/ in apple and the insertion of /s/ in mens. The subject is then asked to circle each place in the following sentences which would have to be corrected to make the sentence acceptable for the classroom. The first sentence "He pick  me" is a simple case of presence or absence of the third personal singular marker /s/ which forms a voiceless cluster before a following consonant. The second sentence is also designed to be an easy case; here ain't may be replaced by either isn't or hasn't. The third sentence is more difficult, since it requires recognition of the discontinuous have + ed marker when the have is contracted to 've. The sentence may be corrected by deletion of the have or addition of ed. The fourth sentence is a simple case of double negative; in the Lower East Side Study, this was demonstrated to be the most highly stratified of all grammatical indicators of socio-economic position. The fifth sentence, "He never play no more, man" is more complex, since it contains three non-standard signals. The most obvious one, the use of the appositive man, is designed to distract the reader's attention from the double negative and the absence of the third person singular marker. The sixth sentence is also more difficult to correct, since the third person singular marker is separated from its singular referent man by a considerable distance. Finally the last sentence contains a number of difficult and distracting items. The -ed signal to be added to kick cannot be detected as an auditory signal, since the presence or absence of a /d/ is neutralized before the d of Donald. Therefore the reader must approach the -ed as a purely visual clue. The expression "throwed me out" is intended to distract the reader from the central grammatical point of the verb kick.

A great deal of information is obtained when the subject reads the corrected CC sentences after he has corrected them by circling the appropriate points. We can then compare his phonological behavior with his overt grammatical perceptions.

After the Classroom Correction Tests, the subject reads the Word Lists shown on Cards 12-17, (page 22), and then the Minimal Pairs on Cards 18-20. The linguistic variables concentrated in these lists are discussed below.

The final section in the formal part of the interview schedule is the Perception Test. This is an ABX test designed to detect the subject's ability to perceive four phonemic oppositions which have a variable status in New York City: /ih~eh/ as in beer--bear, cheer--chair, etc.; /in~en/, as in pin--pen, tin--ten, etc; /-θ~-f/, as in Ruth--roof, deaf--death, etc.; and /-st~-s/ as in mess--messed, pass--passed, and so on. The last distinction is first heard in final position, as in mess~messed, and then in prevocalic position as in mess up~messed up. The form of the test used is designed for the simplest possible instructions since some children do not follow instructions as well as others. The subject is told that he will hear three words, and he is to decide which of the three is different. He then listens to a series of three words in which the first and second are different and in which the third matches either the first or the second. To be sure that the subject understands the test, we first use two examples of oppositions which are maintained throughout New York City: /æ~ɑ/ as in [ænt~ɑnt] and /ɑ~ɔ/ as in [tšɑklɪt~tšɔklɪt]. The test then continues with the six examples of each of the five different variables, as shown on the following page. If the subject hears correctly in six or five out of six cases, he is considered able to perceive the distinction; if less than five out of six, he is considered not being able to perceive the distinction.

The final sections of the pre-adolescent schedule is devoted to *Serious Conversation* on a number of topics relevant to social attitudes and aspirations. These questions give us information on attitudes towards school and college, success and job aspirations, responsibilities in the home and comparisons of the roles of mothers and teachers.

b. *The pre-adolescent group interview schedule*--(Q-HAR-PAG). The schedule used with groups of pre-adolescent boys is not as highly structured as the schedule described above, because a great deal more latitude is given to the group itself in developing interaction among its members. Ideally, the group schedule calls for a minimum amount of intervention on the part of the adult interviewer, and the maximum amount of communication between the members of the group. Each of the focal areas outlined above are covered, with topics which are as close as possible to the ones used in the individual interview. There is much more emphasis upon ritual insults (*sounding*, *the dozens*, or *signifying*); this is one of the most effective devices for eliminating the constraints of a normal interview. In this group interaction, we attempt to trace the influence of the peer group--a closed network of internally reinforced obligations--upon the structure and functions of linguistic behavior.

c. *The teen-age interview schedule*--(Q-HAR-TA). The teen-age interview schedule is designed, as it now stands, for face-to-face interviews with teen-age boys fifteen to seventeen years old. The general outline of sections is similar to that of Q-HAR-PA, and only the sections which are completely different will be discussed here. Section III on *Fighting* is enlarged to a three part section dealing with *Trouble* in general. In addition to the questions on fighting, there are questions on *Daring*, which explore further the importance of the group in determining individual behavior. A third sub-section on the *Danger of Death* utilizes the question which was found most successful in the Lower East Side Survey in breaking through the constraints of the formal situation; "Were you ever in a situation, a time or a place, where you were in serious danger of losing your life? Where you said to yourself, 'This is it!'"?

Special verbal behavior associated with the *cool* sub-culture--hip words and slang--is investigated in the teen-age interview. All hip words are subdivided into types depending upon whether they are *new and entering*, *steady*, *passing out* or *obsolete*, for each of the following

## PRE-ADOLESCENT INTERVIEW SCHEDULE Q-HAR-PA

### Perception Test

| A. Zero section | | Response |
|---|---|---|
| Aunt Mary | A. ant | |
| | B. aunt | |
| | X. aunt | ______ |
| chocolate | A. chocolate | |
| | B. chocklet | |
| | X. chocolate | ______ |
| 1. beer - bare | A. beer | |
| | B. bare | |
| | X. 1. beer | ______ |
| | 2. bare | ______ |
| | 3. beer | ______ |
| | 4. bare | ______ |
| | 5. bare | ______ |
| | 6. beer | ______ |
| 2. pin - pen | A. pin | |
| | B. pen | |
| | X. 1. pen | ______ |
| | 2. pin | ______ |
| | 3. pin | ______ |
| | 4. pin | ______ |
| | 5. pen | ______ |
| | 6. pin | ______ |
| 3. Ruth - roof | A. Ruth | |
| | B. roof | |
| | X. 1. Ruth | ______ |
| | 2. roof | ______ |
| | 3. Ruth | ______ |
| | 4. Ruth | ______ |
| | 5. roof | ______ |
| | 6. roof | ______ |
| 4. mess - messed | A. mess | |
| | B. messed | |
| | X. 1. messed | ______ |
| | 2. messed | ______ |
| | 3. mess | ______ |
| | 4. messed | ______ |
| | 5. mess | ______ |
| | 6. mess | ______ |
| 5. mess up - messed up | A. mess up | |
| | B. messed up | |
| | X. 1. mess up | ______ |
| | 2. messed up | ______ |
| | 3. messed up | ______ |
| | 4. messed up | ______ |
| | 5. mess up | ______ |
| | 6. messed up | ______ |

groups: a core of hip speakers on the streets of New York City, an inner ring which derives knowledge of slang directly from this group, an outer ring which follows this trend without direct contact with the core, and the general public.

The subject's knowledge of hip vocabulary provides us with a measure of his participation in various sub-cultures of New York City. In this section, we ask for the meaning of a range of terms--divided into two groups on the bases of currency--and relating to a) drinks, b) drugs, c) fighting, d) contact with police and e) the concept of cool or down.

The sections on serious conversation are much more highly developed in the teen-age interview. We are interested in the subject's sources of information for important questions on sex, on jobs, on college; the answers to these questions also give us information on the social aspirations and orientations of the speaker. We are also interested in whether the individual will express feelings of tenderness or concern for the opposite sex, or whether the only language open to him is that of exploitation and violence.

A sub-section on Family Secrets has been developed to explore the possibility of verbal interference from long history of repression of certain topics within the family

> "Suppose you were married, and you had a boy who was about five years old, and he came up to you and asked, 'Daddy, what does this word nigger mean?' How would you explain it to him?"

Answers to this question show whether the subject has verbal techniques available for handling an important topic related to "race." The central focus on Fate is introduced with the question

> "A lot of times, when people are talking to us about a situation where they almost lost their life, they say, 'Whatever is going to happen is going to happen.' How do you feel about that?"

We then explore the fate concept further in discussing premonitions, gambling and playing the numbers, and experiences with readers and advisors.

In the teen-age interview, we have also developed projective techniques which allow the speaker to express his feelings on important matters of discrimination, job opportunities, and his personal future. Overt attitudes towards language are explored with general questions about white and Negro speech patterns, attitudes towards language, and other direct questions about language differences.

The Reading text for the teen-age interview is more highly developed than the text for the pre-adolescent interview. A considerable amount of effort was devoted to constructing a text which would concentrate the important linguistic variables in individual sentences, which could then be used for the subjective reaction texts. At the same time, this text was designed to be as natural as possible within the limits of reading style, so as to provide maximal contrast with the reading of isolated word lists. The text constructed (Nobody Knows Your Name) is given on the following page. Each of the sentences which concentrates a linguistic variable is enclosed in a solid line, and each instance of the variable is underlined. A "Zero" sentence is given near the beginning, to serve as a null instrument for calibrating subjective reactions to voice qualifier and reading style.

Subjective evaluation tests are now being constructed from recordings of this text. These tests allow us to isolate individual response to particular variables by a series of comparable ratings, which should provide insight into the important problem of functional conflict between standard English and non-standard forms.

d. The adult interview schedule--(Q-HAR-Ad). The adult interview schedule follows the general development of the two types shown above, with sections on Children's Games, Fighting, Peer-group, Neighborhood and Family. A section on Violence, Danger and Fate explores these topics more deeply, especially in regard to the evaluation of violence. The sexual connotations of violence are explored in the following question:

> "In arguments between men and women, some people say a man should never hit a woman under any circumstances. Do you think that's so? If a woman did something that made a man very angry, so he couldn't hold his temper--would you say he was less of a man for hitting her--or more of a man?"

Similarly, questions about fighting on the job allow us to compare values associated with getting ahead as opposed to toughness or masculinity.

## 8. Analyses of the data and findings.

One of the major goals of this preliminary research project was the isolation of the chief linguistic variables responsible for structural conflict between the non-standard English of Negro and Puerto Rican speakers and standard English taught in the classroom. This section will be primarily concerned with the description of the variables, with some preliminary data drawn from exploratory interviews, and in discussion of the structural hypotheses which can be drawn from this data.

### A. Phonological variables.

The principal steps in the isolation and codification of phonological variables, as developed in previous sociolinguistic studies, take the following form:

1. Isolation of the gross variables.

2. Definition of relative environments, and subdivision into minimum word classes.

# NOBODY KNOWS YOUR NAME

Last year I went out for the basketball team, and I made out
better than I expected. I wasn't too big, but I was quick on my feet,
zero and my jump shot used to drop in when it counted. The coach told me him-
self I was a real help to the school.

But you couldn't tell that to Eleanor. No matter if I did good
(eh) or bad, she'd ask me after every game: "Why can't you be the man to put
it in the basket?" I'd tell her, "Look, Eleanor, everybody can't be a
(r) star. I'm not a forward; I'm not a center: I'm a guard. I play the
back court."

(st$^V$) "But you passed it to Lester again," she used to say, "you must
have passed it to Lester sixty times, and he missed it most of the time.
(ts) Why don't you make the shots?" "It's easy enough to explain," I told her,
"if you only know what's what. Lester is seven-foot-two; I'm five foot
(st$^K$) ten. He just twists his wrist and puts it in."

(dh) She wouldn't see it, and I couldn't make her see it. I'd talk
(th$_+$) till I was out of breath, but I might as well have kept my mouth shut. It
(th$_1$,dh$_1$) was always something: if it wasn't this thing, it was that thing, or the
other thing. I'd tell her again, "Look Eleanor, I'm not supposed to be
(r) a star. I'm not a forward; I'm not a center: I'm a guard. I play the
back court."

(AY) Then she tried a new line. "I know you're right," she said.
"But what about my pride: I don't think any of my friends remember if
(in) you're a center or an end or a tackle. Nobody knows your name!"

(OY) She made my blood boil. I said I wasn't going to hog the ball to
(work) please her. I was ready for murder or worse. And she said she wouldn't go
out with me any more if I didn't score a lot of points. So I told the coach
(r) about it. He said, "Artie, everybody can't be a star. You're a good team
man. It should be an easy game tomorrow night, so we'll keep setting you
up."

They fixed me up to look good all right. I just hung under the
(st$^K$) basket, and everybody passed me the ball. I pushed the easy ones in,
(th$_1$) and nobody noticed when I missed. By the end of the game, I had thrown
(ing) in thirty-three points. The whole school was cheering for me: everybody
was shouting my name.

Everybody that is, but Eleanor. I looked for her here, there,
(ehr) everywhere--but there wasn't hide nor hair of her. Finally I called her
(th$_1$) father on the phone. "I just made thirty-three points, Mr. Jones--but
I can't find Eleanor. Do you know where she is?"

Her father said, "Just a minute." Then he said, "She says she can't come to the phone right now, son. She's watching the Dave Clark Five on Channel 2. But she says, will you please do it for her again next week--she can watch you then."

Next year I'm going out for the swimming team--under water. Down there, nobody--but nobody--is going to know my name.

# NOBODY KNOWS YOUR NAME

Last year I went out for the basketball team, and I made out better than I expected. I wasn't too big, but I was quick on my feet, and my jump shot used to drop in when it counted. The coach told me himself I was a real help to the school.

But you couldn't tell that to Eleanor. No matter if I did good or bad, she'd ask me after every game: "Why can't you be the man to put it in the basket?" I'd tell her, "Look, Eleanor, everybody can't be a star. I'm not a forward; I'm not a center: I'm a guard. I play the back court."

"But you passed it to Lester again," she used to say, "you must have passed it to Lester sixty times, and he missed it most of the time. Why don't you make the shots?" "It's easy enough to explain," I told her, "if you only know what's what. Lester is seven-foot-two; I'm five foot ten. He just twists his wrist and puts it in.

She wouldn't see it, and I couldn't make her see it. I'd talk till I was out of breath, but I might as well have kept my mouth shut. It was always something: if it wasn't this thing, it was that thing, or the other thing. I'd tell her again, "Look Eleanor, I'm not supposed to be a star. I'm not a forward; I'm not a center: I'm a guard. I play the back court."

Then she tried a new line. "I know you're right," she said. "But what about my pride? I don't think any of my friends remember if you're a center or an end or a tackle. Nobody knows your name!"

She made my blood boil. I said I wasn't going to hog the ball to please her. I was ready for murder or worse. And she said she wouldn't go out with me any more if I didn't score a lot of points. So I told the coach about it. He said, "Artie, everybody can't be a star. You're a good team man. It should be an easy game tomorrow night, so we'll keep setting you up."

They fixed me up to look good all right. I just hung under the basket, and everybody passed me the ball. I pushed the easy ones in, and nobody noticed when I missed. By the end of the game, I had thrown in thirty-three points. The whole school was cheering for me: everybody was shouting my name.

Everybody that is, but Eleanor. I looked for her here, there, everywhere--but there wasn't hide nor hair of her. Finally I called her father on the phone. "I just made thirty-three points, Mr. Jones--but I can't find Eleanor. Do you know where she is?"

Her father said, "Just a minute." Then he said, "She says she can't come to the phone right now, son. She's watching the Dave Clark Five on Channel 2. But she says, will you please do it for her again next week--she can watch you then."

Next year I'm going out for the swimming team--under water. Down there, nobody--but nobody--is going to know my name.

3. The codification of the variables into linear or multidimensional scales, and the refinement of the scale through phonetic transcription.

4. Reduction of the number of coded categories on the basis of reliability tests, and the development of a quantitative index.

5. Combination and reduction of the relevant word classes to the minimum number required for the analysis of co-variation.

These steps were followed with nine major phonological variables found in the speech of Negro children and adults; some of these had been recorded only by quantitative methods. The end result of this procedure is shown as Figure 1, which is the basic form for recording phonological data from the interview schedules. Figure 1 provides space for the summary of the total occurrences of each of the variables for two distinct contextual styles. The actual data which is entered represents the spontaneous speech of a ten year old boy, as recorded in the second group interview with the Thunderbirds described above, and the careful speech of the same boy, on the right, as recorded in a face-to-face interview.

In the following paragraphs, each of the variables will be defined, with the description of the individual values of the variable, the method of combination into an index, and the word classes to be considered. Some of the typical results of exploratory interviews will then be discussed.

(R) This symbol is a cover category for all the variables which concern the realization of morphophonemic //r// (equivalent to orthographic r), as it occurs in various environments. In general, the Negro speakers of New York City have a higher degree of r-lessness than native white New Yorkers, and the critical dimensions of variation shift to a different area of the r-spectrum, as indicated below.

(VrV): this sub-variable represents the occurrence of //r// in intervocalic position, preceded by a stressed vowel and followed by a vowel with a lower degree of stress: Carol, Paris, borrow, etc.

(r/V): the occurrence of //r// in word-final position, when the next word begins with a vowel, as in four o'clock, where are you, etc.

(work): the occurrence of //r// in pre-consonantal position when the preceding vowel is mid-central, as in work, shirt, first, bird, etc.

(her): the occurrence of //r// in final position or before a word boundary, where the preceding vowel is mid-central, as in her, stir, were, etc. This is a small word class; her and were are the chief representatives.

FIGURE 1

| I.V. No. HAR-PA-59 | I.V. No. HAR-PAG-4 |
|---|---|
| Name Ricky Todd | Name Ricky Todd |
| Tape No. 450 | Tape No. 454 |
| Date 9/8/65 | Date 9/15/65 |
| SINGLE INTERVIEW<br>Careful Speech | GROUP INTERVIEW<br>Casual Speech |

| | | | Index Values | | Index Values |
|---|---|---|---|---|---|
| (R) | (VrV) | 111101111 | 89 | 1 | (100) |
| | (r/V) | 0000000000 | 00 | 0 | (00) |
| | (work) | 1111111111 | 100 | 110 | (67) |
| | (her) | 0000000 | 00 | -- | -- |
| | (r) | 00000000000000000000 | 00 | 000000000000000<br>0000001000 | 04 |
| (TH) | (th$_i$) | 22112222333222 | 107 | 2111 | 25 |
| | (th$_+$) | 1100303031 | 90 | f h 310 | 80 |
| (DH) | (dh$_i$) | 13333330133223333132223222333 23 | 150 | 3321312332333333 0330 | 155 |
| | (dh$_+$) | 103 | 100 | 1 | (100) |
| (AY) | (ay$_o$) | 0111011211 | 9 | 001020011101 | 6 |
| | (ay$_v$) | 323212331223323 | 23 | 2333221332 | 24 |
| | (ay$_+$) | 22133333332 | 26 | 2333333333 | 29 |
| (ING) | ($_+$ing) | 0000000000 | | 011000000 | 22 |
| | ($_o$ing) | 0000 | 0.0 | | |
| (EH) | (ihr) | 1111111 | 10 | 11 | (10) |
| | (ehr) | 12112221112121 1 | 14 | 111122211 | 13 |
| (OH) | (uhr) | 32 | 25 | -- | -- |
| | (ohr) | 2430$^w$1112222 | 20 | 0$^w$30$^w$1333 | 19 |
| | (ɔhr) | 2333322221221 | 22 | 3 | (30) |
| | (ɔh) | 212222223111322 | 19 | 223223332323323 3132 | 25 |

(KKL)

| | M M | D | M M | D |
|---|---|---|---|---|
| (K$^V$D) | | xv11 | | |
| (K$^O$D) | 1 | x1vxv1xv | 1 | xv |
| (sD) | 1xx11v11111vo11111 | 1 | 1111111v11v | |

| | MM | Pl | VBL | Pos | Adv | MM | Pl | VBL | Pos | Adv |
|---|---|---|---|---|---|---|---|---|---|---|
| (K$^V$Z) | | xv221<br>2vxxv | 1x1v | | xv | | x1xv | xx | | |
| (NZ) | | xxy1xx<br>xy11xx | 1111 | x | | | xx | | | 111 |
| (K$^O$Z) | xxvx | xx | | | | x | xxx | | | |
| (tZ) | | 2vxxx | 1111v1v<br>1v1v1 | | | | | | | |

| | | |
|---|---|---|
| (is) | 2vxv22222v2222 | 2222 |

Key

x = KK
1 = KK̸
2 = K̸K
xv = KKV

(r): the residual category for all other instances of final and preconsonantal //r//, as in *beer*, *bear*, *beard*, *bared*, *boor*, *bored*, *bar*, *bard*, etc.

The codified values of (R) follow the same fundamental system throughout:

(R-0): [ə, $^{\text{ə}}$, - ] that is, an unconstricted glide, or zero, frequently with lengthening of the preceding vowel.

(R-1): [r, ɚ, $^{r}$, ṛ ] that is, the presence of a constricted consonantal central glide, either retroflexed or humped, with varying degrees of constriction.[31] In the case of (work), forms are frequently found with front upgliding diphthongs as [wə$^{1}$k]. This is a non-standard stigmatized form in white New York City speech, but a common regional form in Louisiana, Georgia, the Charleston area, and other sections of the Lower South. For white New Yorkers, this form, recorded as (R-[-1]) must be given a special negative value, but for the Negro population, it is recorded as another *r*-less form and is averaged with a zero numerical value.

The quantitative index for mean (R) values is the same for all five of the variables listed above: the total numerical values of all instances of the variable, divided by the total occurrences of the variable and multiplied by one hundred: that is, the percentage of constricted forms.

The Negro subjects of the exploratory interviews, in the Lower East Side survey, and in Harlem, are usually completely *r*-less in both casual and careful speech for the residual variable (r): that is, they show (r)-00 in these styles. In reading style and word lists, higher values are found. The Negro subjects also differ from white subjects in generally following a norm of (r/V)-00 in speech; that is, constricted [r] does not usually appear when the next word begins with a vowel. For white subjects, morphophonemic //r// is usually realized as a constricted [r] in this position (except for a number of lower class speakers). As a result, there is less support for the existence of a morphophonemic //r// in *car*, *bar*, etc., for Negro speakers than for white speakers. The abstract representation of these morphemes for Negro speakers would therefore be different from that of white speakers, and therefore differ from the representation used in spelling. It is clear that this fact alone would make it more difficult for Negro children to learn to read than for white children.

(TH) and (DH): these variables, like the preceding (R), have the same general significance throughout the United States, and show much the same dimensions of variation. The (TH) variable is not as frequent as (DH), but it is more salient for most speakers and it can be coded with greater ease and reliability. There is reason to think that non-standard forms of (TH) have greater social significance than non-standard forms of the voiced counterpart (DH). In both cases, it is necessary to distinguish initial environments from medial and morpheme-final environments, as far as Negro speakers are concerned.

(th$_i$) and (dh$_i$): these sub-variables represent the occurrence of //θ// and //ð// in morpheme initial position, as in thing, three, something, this, then, etc. There are three major values of both variables

| | | | |
|---|---|---|---|
| (TH-1) | [θ] | (DH-1) | [ð] |
| (TH-2) | [tθ] | (DH-2) | [dð] |
| (TH-3) | [t] | (DH-3) | [d] |

In both cases the first form is the prestige form ~~except~~ in standard English, that is, the fricative. The intermediate value is an affricate, which is commonly heard at all social levels, especially in initial position. The third value is a stop, usually a lenis dental stop, quite distinct from the stops of /t/ and /d/. The stops considered here are usually more weakly articulated with more rapid contact, less fully voiced, with less aspiration. Under stress and emphasis, there is no doubt that they can become identical with the stops, so that thin and tin, then and den, are homonyms. It is worth noting, however, that there are apparently no native speakers of English in the metropolitan New York City area who always use the stop form. A certain number of fricatives and affricates are heard in the speech of everyone, and furthermore there is no reason to believe any complete merger has taken place. If it had done so, we would have hyper-correction in more formal styles, with standard words such as tin and den pronounced with fricatives. It is conclusive evidence that no instances of this confusion have appeared in hundreds of interviews. (th$_i$) and (dh$_i$) are true variables which cross structural lines.

(th$_+$) and (dh$_+$): these sub-variables represent the occurrence of //θ// and //ð// in morpheme-final position, in words such as Ruth, death, bath, and breathe, bathe, etc. In addition to the values of the variables noted above, we also have here labio-dental fricatives (and for some groups, bilabial fricatives as well). For many speakers of the Negro community, there is no doubt a phonemic merger of final //θ// and //f//, and //ð// and //v//. Thus Ruth and roof, death and deaf, are homonyms for many of the Negro children and adults we have studied.[32] It should be noted that occurrences of [f] and [v] in (th) words are confined essentially to the Negro community. Some white children, and some white adults with speech defects have shown this tendency.[33] Furthermore, it is common in other non-standard dialects, such as Cockney;[34] but in normal development among adults in New York City, it is confined entirely to the Negro community. As such, there is no doubt that the use of /f/ in words such as death and Ruth, both and mouth, is a significant marker of the Negro ethnic group.

There are some important structural relations between these stops and fricatives which should be explored in order to account for the differences of white and Negro speech. In the Lower East Side survey, tongue-tip position for initial /t/ was determined for all subjects. The majority of the Negro subjects used an interdental [t], with the tip of the tongue placed just behind and between the teeth; on the other hand, the great majority of the whites used a dental [t] with the tongue tip up against the back of the upper teeth, or a blade affricated [t], with contact at the alveolar ridge along the blade of the tongue, and the tip of the tongue hanging loosely near the rim of the lower teeth. The tongue position for the Negro /t/ seems to be close to the position used by many white speakers for /θ/. For Negro speakers, /θ/ is commonly articulated with interdental rather than pre-dental position--that is, the tongue protrudes some distance between the teeth. This structural difference leads to the possibility that inter-dental /θ/ is closer acoustically to [f] than pre-dental /θ/. The oscillation of /θ/ and /f/ is not common; an alternation of /θ/ and /s/ is a more frequent phenomenon, as in Spanish.

The quantitative index for (TH) and (DH) is obtained by averaging the numerical values of the variables, multiplying by 100 and subtracting 100, so that the index ranges from 00 to 200: 00 if only fricative forms are used, and 200 if only stop forms are used. At present, we have not derived any satisfactory means of merging the [f] values of the variable with the others; there seems to be two different dimensions, and it is difficult to scale them in a linear fashion.[35]

The (th$_1$) and (dh$_1$) variables are among the best indicators of the general level of stylistic shift in speech. The data are very high in frequency and extremely reliable. For various sections of the same interview, some of our pre-adolescent youngsters showed extremely stable mean values of (dh$_1$): 157, 160, 155, etc.

(AY): this variable represents the values of the standard diphthong in wife, side, sigh, etc. It is one of three closely related diphthongs, (AY), (AW), and (OY). In our exploratory interviews, we used all three of these variables, broken down into three sub-variables as shown below. But since (AY) is the most frequent, and the other variables did not seem to provide any further information for Negro speakers which could not be predicted from (AY), this one variable was chosen as a sole representative for detailed quantitative study.

Three sub-variables of (AY) show different values for various speakers:

(ay$_o$): this sub-variable concerns all instances of (AY) before voiceless obstruents, as in right, life, like, etc.

(ay$_v$): all occurrences of the variable before voiced consonants, as in side, wise, while, time, etc.

(ay$_+$): all occurrences of the variable before morpheme or word boundaries, as in sigh, die, pieplate, etc.; also before the ingliding vowel derived from morphophonemic //r//, as in fire [faɪə].

Values of the variable: the variable (AY) is perhaps the most difficult of all phonological variables to codify in a reliable fashion. In a number of tests, it was found that a linear index of weakening was not reliable enough, nor was an impressionistic combination of fronting, lengthening, and weakening of the glide. One of the difficulties is that the absolute length of nucleus and glide varies considerably in the three sub-variables, and there are no word classes which can be used as a standard of comparison in differentiating a slight weakening of the glide or a slight lengthening of the nucleus from a moderate weakening or a moderate lengthening. Yet it is important to achieve a reliable index for (AY) because this variable is the most sensitive index of stylistic shift for the Negro population of northern cities specifically. In initial reliability testing, it was found that this was the one area where Mr. Robins showed more native facility than Mr. Cohen or other white transcribers. Whereas white working class New Yorkers are sensitive above all to the variable (EH) representing the height of the vowel in *bad* etc., and lower middle class white New Yorkers very sensitive to (OH), or the vowel in *off*, etc., Negro New Yorkers seem to show the greatest sensitivity to (AY). The present approach to the problem of transcription of (AY) involves a rating of each occurrence of the variable along three dimensions--fronting of nucleus, length of nucleus, and direction of upglide, with a relatively coarse three-point scale for each. The next step is a codification of the eighteen possibilities into a much smaller set of (AY) values, derived from their actual distribution in speech.

(ING): this is the familiar variable of the *-ing* suffix, one of the first sociolinguistic variables treated by quantitative means.[36] There are two important word classes: (a) the suffix derived from the *be + ing* element of the auxiliary, as in *working*, *fishing*, etc., and (b) the termination of certain nouns with vaguely morphemic status, or none at all, as in *morning*, *evening*, *something*, etc. In both of these word classes, we are concerned with unstressed (ING): the stressed form of *thing* is not included.

The values of the variable are simply (ING-1): [ɪŋ], and (ING-0): [ɪn, n]. In other words, the opposition is simply one of velar vs. apical consonant. (The common form of *something* with a labial final nasal [sʌmpm] is not included.)

The (ing) index is simply the ~~percentage~~ number of (ing-1) over the total number of occurrences of the variable times 100--that is, the percentage of prestige forms with the velar final.

In general, this variable has the same significance for white and Negro speakers, but it is plain that the Negro speakers of Harlem show the general southern usage ---- a lower range of the variable than for northerners. The velar form always indicates more careful speech,[37] but it is not as freely used, even in the most formal styles.

(EH): this variable is one of the most complex elements in the sociolinguistic structure of New York City speech. It represents the height of the mid-front ingliding vowel, represented by fifteen distinct sub-variables in monosyllabic morphemes alone for white New Yorkers. But as far as most Negro speakers are concerned, we are primarily interested in the merger of /iə/ and /eə/ so that the following word pairs fall together as homonyms: cheer~chair, steer~stair, fear~fair, etc. (For most Negro speakers, the other members of the New York City complex --bad, ask, hand, etc., remain as low front vowels [æ^] or [æ^ə].) Therefore the two sub-variables which are studied are (ihr)--fear, hear, beard, etc. and (ehr)--fair, hair, bear, bared, etc. Whereas the merger of these word classes takes place for most New Yorkers at the [ɩ:ə] level, for most Negro speakers the merger takes place at the phonetic level of [e:ə]. This type of merger is quite common in South Carolina and sections of the lower South. The records of the Linguistic Atlas do not show this phonemic feature unambiguously, but the results of our eighteen exploratory interviews in Beaufort County, South Carolina, show that the total merger is characteristic of both Negro and white speakers alike in that area.

The index for (eh) is constructed from the same scale of values used in the sociolinguistic study of New York City:

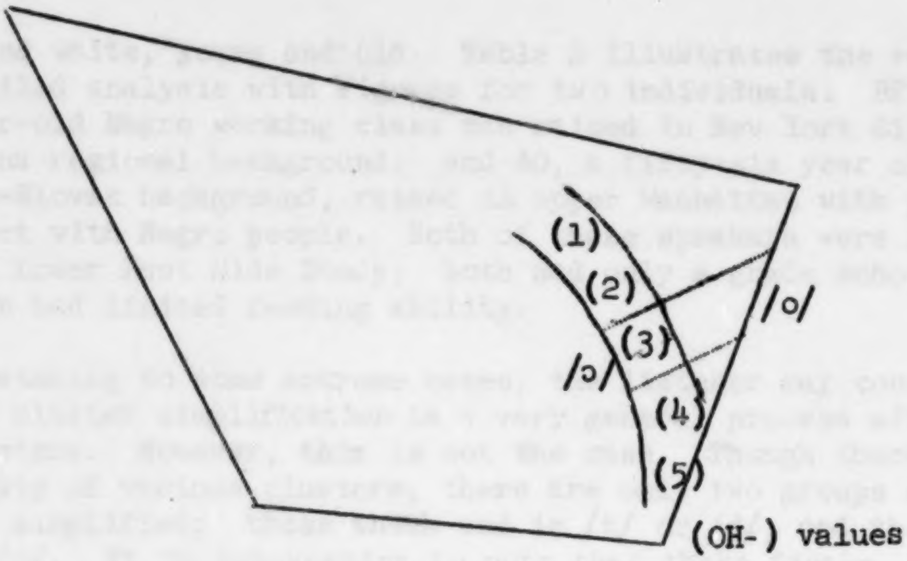
| | |
|---|---|
| (EH-1) | [ɩ:ə], [ɩ:] |
| (EH-2) | [e:ə], [ɛ:ə] |
| (EH-3) | [æ^:ə], [æ^] |
| (EH-4) | [æ] |

The lower values of the variable which occurs in other word classes are not relevant here. The index is constructed from a numerical average of the values of the variables that occur, multiplied by ten. Thus consistent use of (EH-2) in fear, here, etc., would give an index of (ihr)-20.

(OH): this variable is structurally parallel to the (EH) variable. Among Negro speakers we investigate the merger of /uə/ and /oə/ at the mid-level, just as we investigated the merger above: sure and shore, lure and lore, moor and more, may or may not be homonyms. Thus the values of the variables show a similar parallel:

| | |
|---|---|
| (OH-1) | [u:ə] |
| (OH-2) | [o<ə] |
| (OH-3) | [ɔ^] |
| (OH-4) | [ɔ] |
| (OH-5) | [ɒ] |

However, this dimension of raising, fronting (and pursing) is not the only one which is relevant in the study of Negro speech. Since many Negro speakers retain the southern regional characteristic of a distinction between four and for, hoarse and horse, pork and storm, we often obtain /o/-like forms in the (ohr) word class. This additional dimension, following the southern regional forms, may be represented by the diagram on the following page:



Thus the (OH) variable involves two possible variations in phonemic structure: on the one hand, a merger of /uə/ and /oə/ with overlapping phones along the line from lower right to upper left; on the other hand, a retention or loss of the distinction between /oə/ and /ɔ/ in four vs. for and pork vs. storm.

The construction of the (OH) index follows the parallel of the (EH) index, with a numerical average of the values which are recorded for each instance of the variable, multiplied by ten. Thus a consistent pronunciation of sure, and cure at (OH-2) will yield an index of (uhr)-20. The other dimension of the variable gives us a separate index of /oə/ vs. /ɔ/, which serves as an index of participation in regional southern speech forms.

(KKL): consonant cluster simplification. The next eight subvariables shown on Figure 1 concern various forms of consonant cluster simplification. This is by far the most important set of variables in the study of the sound patterns in Negro speakers--a set of variables, for there are diverse tendencies represented here. The overall importance of consonant cluster simplification depends upon the fact that this phonological variable coincides with the most important grammatical deviations from standard English, so that it is a difficult but crucial task to separate non-standard phonological from non-standard grammatical rules.

Before the present preliminary study, consonant cluster simplification had never been analyzed systematically. In the Lower East Side Study, qualitative records were made of the major cluster simplifications, but our current quantitative studies have shown that such qualitative methods are indeed inadequate for the study of the problem. As a first approach, it was necessary to study in detail every possible variation in consonant clusters found in the speech of a representative range of subjects, Negro and white, young and old. Table 2 illustrates the results of such a detailed analysis with figures for two individuals: BF, a forty-five year-old Negro working class man raised in New York City, with a South Carolina regional background; and AO, a fifty-six year old white man, of German-Slovak background, raised in upper Manhattan with practically no contact with Negro people. Both of these speakers were interviewed for the Lower East Side Study; both had only a grade school education; and both had limited reading ability.

In listening to some extreme cases, the listener may conclude that consonant cluster simplification is a very general process affecting almost all clusters. However, this is not the case. Though there is great variability of various clusters, there are only two groups of clusters which are simplified: those which end in /t/ or /d/, and those which end in /s/ or /z/. It is interesting to note that these finals are also the most important formal marks of English inflections. Although these represent the great majority of consonant clusters in all types of words, we find that clusters ending in velars, palatals, or labials are held constant and unsimplified: for example, /ŋk, mp, sp, ndž/. (One apparent exception is the cluster /sk/ which does occur in simplified form with the k deleted, but this deletion may proceed from the metathesized form /-ks/.) Clusters in which the first member is /r/ are not considered here, since these are handled in the (R) variable.

In Table 2, we have therefore listed the /t~d/ clusters first, in order of frequency; these figures represent the totals for casual and careful speech combined, under the heading of the variable (D). The simplification we are concerned with in the case of the (D) clusters is always the loss of the final element, normally with retention of the first. In dialect literature, this is commonly represented as *tol'* for *told*, or *firs'* for *first*. In all cases, this first analysis is made as if every deviation from standard English represented a phonological rule--that is, that there are no grammatical differences in the speech of the subjects. This is not the case, but the method followed here is a useful one in the first quantitative approach to the variable.

The first column of Table 2 shows the ratio of clusters simplified to all clusters, K$\cancel{K}$/KK, for BF. The second column shows this ratio for those clusters which are monomorphemic; that is, where the /t~d/ does not represent a grammatical signal. The third column shows the figures for those clusters where the /t~d/ represents the past tense morpheme -*ed*. Columns four, five, and six show the same ratios for speaker AO.

The most frequent cluster, and the most reliable one for this analysis, is /st/. It is striking that both speakers BF and AO show the same percentage of simplification for monomorphemic clusters: the high figure of 78%. The cluster /ft/ shows a similar percentage, but the others show a somewhat lower percentage, from 50 to 67%. The total percentage of (D) simplification for BF is 67%, with monomorphemic and past showing almost the same percentages. AO shows almost the same total per-

## TABLE 2

## SIMPLIFICATION OF CONSONANT CLUSTERS FOR BF AND AO

**BF** KK̸/(KKL)

| | (D) | ($D_{MM}$) | ($D_P$) |
|---|---|---|---|
| (st) | 29/37 | 26/32 | - |
| (ft) | 7/9 | 7/9 | - |
| (nt) | 8/16 | 8/16 | - |
| (nd) | 8/14 | 8/13 | 0/1 |
| (ld) | 8/15 | 6/12 | 2/3 |
| (zd) | 5/8 | - | 5/8 |
| (md) | 2/3 | - | 2/3 |
| oth | 4/4 | 1/1 | 3/3 |
| Total | 71/106 | 56/83 | 15/23 |
| % KK̸ | 67 | 69 | 65 |

**AO** KK̸/(KKL)

| | (D) | ($D_{MM}$) | ($D_P$) |
|---|---|---|---|
| (st) | 18/23 | 18/23 | - |
| (ft) | 0/2 | 0/2 | - |
| (nt) | 14/29 | 14/29 | - |
| (nd) | 8/14 | 7/8 | 1/6 |
| (ld) | 2/4 | 1/1 | 1/3 |
| (zd) | 3/4 | 3/4 | - |
| (md) | - | 0/1 | - |
| oth | 1/5 | - | 1/4 |
| Total | 46/81 | 43/68 | 3/13 |
| % KK̸ | 57 | 63 | 23 |

**BF**

| | (Z) | ($Z_{MM}$) | ($Z_{PL}$) | ($Z_V$) | ($Z_{IS}$) |
|---|---|---|---|---|---|
| Total KK̸ | 18 | 0 | 13 | 4 | 1 |
| K̸K | 31 | 12 | 7 | 1 | 11 |
| KK | 49 | 23 | 20 | 2 | 4 |
| all KKL | 98 | 35 | 40 | 7 | 16 |
| % KK̸ | 20 | 00 | 31 | 57 | 06 |
| % K̸K | 32 | 34 | 18 | 14 | 69 |

**AO**

| | (Z) | ($Z_{MM}$) | ($Z_{PL}$) | ($Z_V$) | ($Z_{IS}$) |
|---|---|---|---|---|---|
| Total KK̸ | 4 | 0 | 4 | 0 | 0 |
| K̸K | 6 | 0 | 0 | 0 | 6 |
| KK | 59 | 13 | 36 | 1 | 9 |
| all KKL | 69 | 13 | 40 | 1 | 15 |
| % KK̸ | 06 | 00 | 11 | 00 | 00 |
| % K̸K | 09 | 00 | 00 | 00 | 67 |

centage of simplification for monomorphemic forms: 63%. This is a typical but important finding, since it is not generally recognized that many white speakers raised in the north show just as high a percentage of consonant cluster simplification as Negro speakers--in monomorphemic forms, where the /t~d/ does not represent a grammatical form. However, speaker AO does not show the same high percentage of simplification in past tense forms--only three out of thirteen cases, and this difference is repeated in many other comparisons.

There are two ways in which we can approach this quantitative difference in the tendency of Negro and white speakers to differentiate monomorphemic and past tense clusters. On the one hand, we could say that the phonological rule for consonant cluster simplification has been generalized for speaker BF, and over-ridden the grammatical constraint which AO recognizes. On the other hand, we could say that this result shows a basic error in the provisional grammatical analysis adopted for speaker BF. It may very well be that when the simplest grammatical rules are written for the dialect of BF, we will find that a great many of the clusters which we supposed to exist in the past tense, were not actually there. It is possible that one check upon a set of grammatical rules for BF would be to show that the phonological rule would then operate upon this grammar in the same way as it does upon the grammar of AO. However, the second approach does not account for the fact that the percentage of simplification for BF is the *same* in both cases: thus it would be possible to explain this fact by saying that the same phonological rule is operating without constraints upon monomorphemic and the past tense forms.

The situation in respect to /s~z/ clusters is somewhat more complicated, since monomorphemic forms are rare, and there are six different possibilities for grammatical forms: the *s* representing the plural, the third person singular, possessive, *is*, *has*, and *us* in *let's*. In this case there are two possibilities for simplification: the //z// may remain, or the //z// may fall and the first consonant may be retained. The actual numbers of instances of both possibilities are shown in the bottom half of Table 2. Here upper figures of each triad represent the cases where the first element of the cluster is lost, the second figures represent the loss of the second element, and the third figures the total occurrences of the cluster. It is evident that certain forms may simply not be frequent enough to be represented in the performance of any one speaker in an hour of conversation. However, if we examine the totals for BF as against AO, it is evident that the parallel which existed in the case of (D) does not exist here. BF shows 61% simplification, while AO shows only 18%. In monomorphemic forms ($Z_{MM}$), BF showed loss of the first element in 12 of 35 cases.[38] However, AO showed no simplification of monomorphemic forms. BF showed most retention of consonant clusters when the //Z// represented the plural, and most simplification with the //Z// of verbal agreement. Note that when ($Z_V$) is simplified, the //Z// is dropped (unless we consider that the //Z// was never present), while the simplification of the //Z// representing *is* produces no loss of grammatical signals, since the preceding consonant is lost in most cases, as in *that's* [ðæs]. In the speech of AO, we found that the basic grammar is almost intact; the only case of loss of final consonant was the special case of /sk/ in *ask*, and six out of fifteen cases in which the //Z// of *is* in *that's*, assimilated the preceding /t/.

One more individual case is worth considering here. During the Lower East Side Study, a unique set of circumstances gave us a long, valuable record of the intimate family speech of a Negro speaker who is familiar with both Northern and Southern speech communities.[39] Speaker DR is a Negro woman born in North Carolina, age forty, living in New York City with her niece and nephew; the range of consonant cluster variables in her speech is particularly useful for this analysis. Table 3 shows the pattern of consonant cluster simplification for DR's careful speech, as in the bulk of the interview, and this unique record of intimate family speech. The quality of the two styles may be conveyed by the following short extracts:

> DR Careful Speech:
>
> Smart? Well, I mean, when you use the word *intelligent* and *smart*, I mean you use it in the same sense? So some people are pretty witty...I mean, yet they're not so intelligent...
>
> DR Family Speech:
>
> Well no, she ain't had no kind of nobody to bring her up. I was kinda glad she was comin', and I said--uh--I know dis other little boy, cause he used to go to school with Lilly Belle...And all those kids was smart, you know. ...Tha 's Nick boy.

Table 3 shows us that all of the (KKL) variables are functions of style, and that there are dramatic differences in the effect of grammatical information. For the (D) variables, DR's careful speech resembles that of the white speaker AO: ($D_P$) is only half as great as ($D_{MM}$). In family speech, there is no grammatical conditioning. In the (Z) variables, we find that DR's careful speech shows very little simplification; in family speech, there is a great increase, especially in ($Z_V$). What is most significant is that in four out of seven cases in family speech the //Z// is lost, and two out of three cases in ($Z_{POS}$). On the other hand, it is the final consonant of the stem which is dropped more often in ($Z_{PL}$) and ($Z_{IS}$). Thus we have reason to think that family speech contains rules which differentiate these grammatical classes.

One environmental factor of great importance must be taken into account in studying the distribution of the (KKL) variable: whether the following word begins with a consonant or a vowel. It was noted above in connection with the (R) variable that a following vowel has a strong effect in inducing the realization of final //r// as a constricted

## TABLE 3

## OVER-ALL CONSONANT CLUSTER SIMPLIFICATION FOR DR

| | $K\not{K}/(KKL)$ | | | $K\not{K}/\not{K}K/(KKL)$ | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Style** | (D) | $(D_{MM})$ | $(D_P)$ | (Z) | $(Z_{MM})$ | $(Z_{PL})$ | $(Z_V)$ | $(Z_{POS})$ | $(Z_{IS})$ |
| **Careful** | 42/89 | 37/70 | 5/19 | 3/8/76 | 0/1/18 | 1/0/23 | 0/0/5 | - | 2/7/30 |
| **Family** | 43/70 | 37/60 | 6/10 | 10/27/57 | 0/2/4 | 1/2/10 | 4/1/7 | 2/0/3 | 3/22/33 |

PERCENT SIMPLIFIED

| | (D) | $(D_{MM})$ | $(D_P)$ | (Z) | $(Z_{MM})$ | $(Z_{PL})$ | $(Z_V)$ | $(Z_{POS})$ | $(Z_{IS})$ |
|---|---|---|---|---|---|---|---|---|---|
| **Careful** | 42 | 53 | 26 | 14 | 06 | 04 | 00 | - | 30 |
| **Family** | 61 | 61 | 60 | 65 | 50 | 30 | 72 | 67 | 76 |

consonant. As we will see, this is also the case with //l//. The effect of the following vowel is a phonological fact, and it would be expected to counteract the effect of the phonological rule which deletes a morphophonemic //r// or consonant cluster.[40] If the reduction of consonant clusters in any item or environment is a purely grammatical rule, one would expect the effect of the following vowel to be nil. Table 4 shows, however, that this is not the case. Here we see the over-all effect of the following vowel upon the consonant clusters (st) and (ts) for seven speakers of varied backgrounds. The variables (st) and (ts) are chosen as the most frequent clusters, to eliminate variation due to the first element of the cluster. In every case, the percentage of simplified clusters is higher when a consonant follows than when a vowel follows, and in most cases, much higher. Table 4 shows an extraordinary regularity in the percentage of simplification of (st$_K$) for the Negro subjects and the white lower class subjects. Only the upper middle class white speaker deviates from the pattern. This statistical regularity shows that we are dealing with the same type of regular variations in sociolinguistic structure that was found in *The Social Stratification of English in New York City*. Furthermore, we see the three white speakers sharply differentiated from the four Negro speakers in (st$_V$)--showing no simplification at all in this variable. The (ts) variable shows a much less regular outline.

We may next wish to investigate the relationship between these two conditioning factors: (a) whether or not the final element is a grammatical signal, and (b) whether a consonant or a vowel follows. Table 5 shows a four-way breakdown for a slightly larger group of twelve subjects--eight Negro and four white. In the first two columns we see the numbers of simplified and unsimplified clusters for monomorphemic and grammatical (st) before a consonant, and in the second two columns the same comparison before a vowel.[41] For monomorphemic forms before a consonant, the mean simplification of (st) is 74%; for the same forms before a vowel, the mean is 22%. In these figures, we see the strong influence of the phonological rule, which would lead us to believe that the *-ed* signal is actually operating normally as an abstract past tense signal, but deleted frequently in specific environments. However, we also see a grammatical rule operating. When we compare the //D// marker as a grammatical form with the monomorphemic forms, we find that before a consonant, only 44% were simplified, as compared to 74% for (st$_{MM}$). Before a vowel, we would expect an even lower percentage for (st$_P$) than the 22% found for (st$_{MM}$). However, this is not the case. The simplification of past regular forms before a vowel is 21%, almost the same as for (st$_{MM}$).

These first explorations in quantitative study are of course quite rough, since the speakers are of varied backgrounds, and all stylistic levels of speech are combined. We can observe that the white speakers differ most from the Negro speakers by their preservation of the past //D// forms, while the results for the eight Negro speakers are quite uniform.

## TABLE 4

## EFFECT OF A FOLLOWING VOWEL UPON SIMPLIFICATION OF (st) AND (ts)

| | | | | stK | | stV | | tsK | | | tsV | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subj | W or N | Background | SES | st̸ | st | st̸ | st | ts̸ | t̸s | ts | ts̸ | t̸s | ts |
| BF | N | NYC | WC | 24 | 6 | 5 | 3 | 4 | 10 | 3 | 0 | 3 | 2 |
| DR | N | NC | WC | 17 | 4 | 2 | 1 | 0 | 6 | 11 | 0 | 0 | 2 |
| SM | N | NC | WC | 21 | 5 | 2 | 2 | 4 | 29 | 36 | 0 | 0 | 4 |
| EJ | N | Miss | WC | 9 | 2 | 2 | 2 | 4 | 11 | 15 | 1 | 3 | 2 |
| AO | W | NYC | LC | 18 | 4 | 0 | 9 | 0 | 10 | 7 | 0 | 0 | 3 |
| ED | W | NYC | LC | 12 | 4 | 0 | 7 | 1 | 7 | 28 | 0 | 1 | 6 |
| IH | W | NYC | UMC | 10 | 9 | 0 | 8 | 0 | 0 | 29 | 0 | 0 | 9 |
| All | | | | 111 | 34 | 11 | 32 | 13 | 73 | 129 | 1 | 7 | 28 |

### Percentage Simplification

| | | stK | stV | tsK | tsV |
|---|---|---|---|---|---|
| BF | (N) | 80 | 63 | 82 | 60 |
| DR | (N) | 81 | 67 | 35 | 00 |
| SM | (N) | 81 | 50 | 48 | 00 |
| EJ | (N) | 82 | 50 | 50 | 67 |
| AO | (W) | 82 | 00 | 59 | 00 |
| ED | (W) | 75 | 00 | 22 | 16 |
| IH | (W) | 53 | 00 | 00 | 00 |
| All | | 77 | 26 | 40 | 22 |

| | Percentage of simplification for Negro Subjects |
|---|---|
| $(st^{K}_{MM})$ | 82% |
| $(st^{V}_{MM})$ | 27% |
| $(st^{K}_{P})$ | 56% |
| $(st^{V}_{P})$ | 26% |

These figures are intended to illustrate the directions of exploration that will be most fruitful in the more comprehensive study of Harlem now being carried out. At the same time, the regularity of the figures shown here suggests that the combination of grammatical and phonological rules which we see here may indeed be characteristic for the population as a whole. It will be necessary to specify the interrelation of these two types of rules more exactly, and in particular the many subcategories must each be investigated separately. It is not enough to say that there are both grammatical and phonological effects: the exact statements of the rules, and their ordering, will be required for an analysis of these speech patterns. It is also possible that the regularities that we see here will not be repeated in the most homogeneous type of linguistic samples--that is, the casual speech of uneducated speakers, unaffected by formal constraints. The data for the Thunderbirds will be presented below to carry the discussion further.

We have discussed the sub-classes of consonant clusters to be analyzed. The values of the consonant cluster variables are relatively simple: for example, we have the following values for the (st) variable, as illustrated for the word fast.

| | |
|---|---|
| (st-0) | [fæ: ] |
| (st-1) | [fæs] |
| (st-2) | [fæ:t] |
| (st-x) | [fæst] |

The presence of a /t/ may be signaled by a variety of phonetic forms: a released apical stop, an unreleased apical stop, a glottal stop, or a sharp constriction of the [s]. If there is any phonetic indication that the syllable final is not a simple [s], then the cluster is rated as (st-x).

(T): this variable is one of the most critical, and yet one of the most difficult to investigate in a quantitative manner. It represents loss of final single apical consonants, in words like bad, pass, is, etc. The most important of these final consonants is /t/, which is frequently realized as a glottal stop, or as no phone at all. Less frequently, final [s], is omitted and of course final [r] and [l] as discussed elsewhere. Final [n] is often realized as nasalization of the preceding vowel, but it is difficult to record this nasalization accurately, and it may not exist in some cases. Velar and labial consonants may be omitted as well, as in the following example from a sixteen year old boy raised in North Carolina:[42]

> "I 'ont--think I talk too good, 'ko' [koˇ] when I come up down South...up here, dey don't understan' mah--sometime I be sayin'. Ba' [bɛˇ] speech. ...Every time I say a work [wɚk] or sump'm, I try to make it--be'er. (To) correck [kərɛʔ] myself every time I, you know, make a ba'-ba' speak. [bɛˇ bɛˇ spiʔ].

In cases like this, we are tempted to say that the phonological rule leading to loss of some final single consonants is generalized to produce a general loss of final consonants, perhaps with a canonical shape of morphemes KV(KV). But in actual fact, rules are never generalized to this extent, and a more specific description of this loss of final consonants is required.

Inspection of this preliminary data would lead us to believe that the simplification of final consonants (or consonant clusters) in monomorphemic forms is quite limited, especially when the single consonant remaining is a velar stop. However, it should never be assumed that any of these rules cannot be generalized more fully or more completely than the majority of the speakers show, and this generalization may be an important factor in some of the reading difficulties of particular individuals. One of the most striking examples of this generalization concerns monomorphemic forms in -ks. Normally words like six and box are not simplified, like most monomorphemic forms in which /s/ or /z/ follows a labial or velar. But we have encountered at least one case where the rules seem to be generalized to include

$$s,z \rightarrow \emptyset \ / K\_\_ \ \#$$

and possibly

$$k \rightarrow \emptyset \ / \_\_ \#$$

For this speaker, six and box are normally [sɪʔ], [bɑʔ] or even [sɪ], [bɑ].

(L): the final variable to be considered here is the loss or retention of final and preconsonantal //l//, a variable which parallels (R). In many ways, we would expect that (L) would follow the pattern of (R), and in fact there are many regional dialects of English which do show such systematic loss of //l//.

Although r-lessness has been studied in detail in linguistic atlases and monographs, l-lessness has never been described systematically. There are two possible reasons for this lack of attention to (L): in the first place, it may be that the loss of //l// has never followed the strictly regional patterns as in the loss of //r//, and secondly, there is some reason to believe that l-lessness is a new and progressive tendency only now reaching its full extent in some parts of the United States. In any case, it is a phenomenon of great importance for our present study, because loss of //l// produces a great many homonyms, perhaps more than in the case of the loss of /r/: *row* and *roll*, *two* and *tool*, *oh* and *old*, *toe* and *told*, and in addition, leads to a loss of distinction between the present and the future (and the past): *you'll find* is homonymous with *you found*.[44]

Since there have been no earlier systematic studies of (L), it has been necessary to do a detailed analysis of all of the possible environments which might be relevant in the study of this variable. The initial studies of (L) which we carried out broke down all possible occurrences of the variable into sub-categories depending upon the phonetic character of the preceding or following segment. After detailed study of a half dozen exploratory interviews, it was possible to reduce these categories to a limited number of sub-variables, each of which shows a different distribution. These are shown in Figure 1 as follows:

(lG): the occurrence of //l// before a glide or liquid /y, w, r/, whether or not a morpheme boundary intervenes, as in *million*, *always*, *all right*.

(lD): the occurrence of //l// before /t/ or /d/, as in *felt*, *yelled*, *held*, etc.

(l): the residual category for all other final and preconsonantal //l//.

All three of these sub-variables are broken down according to the class of the preceding vowel: front, center, back rounded, or back unrounded. Furthermore, (lD) and (l) are analyzed differently according to whether a vowel or consonant follows.

Four values are recorded for the (L) variable:

(L-1): [l,ɫ] consonantal /l/ with tongue tip contact
(L-2): [ɣ] an unrounded back glide, with back of tongue raised
(L-3): [ə] centering glide
(L-4): [-] no phonetic representation

The index for (L) has not yet been fully developed and will depend upon further analysis of the incoming data.

*Values of the Phonological Variables for a Pre-Adolescent Group.* One of the primary purposes of this research project is to describe the most homogeneous linguistic patterns which prevail in the speech of Negro children with minimal influence from standard English. The phonological analysis of group and individual behavior of the Thunderbirds provides us with considerable insight into the system, as shown in Table 6. Here we are able to compare (a) the spontaneous speech of a group interacting continuously among its own members, (b) the speech patterns found

## TABLE 5

## MEAN INDEX VALUES FOR THE THUNDERBIRDS

| | | (a)<br>Group Interaction | (b)<br>Single Interviews<br>Careful Speech | (c)<br><br>Reading Style |
|---|---|---|---|---|
| (R) | (VrV) | -- | 97 | 70 |
| | (r/V) | 15 | 06 | -- |
| | (work) | 70 | 86 | 77 |
| | (her) | 00 | (17) | -- |
| | (r) | 00 | 00 | 02 |
| (TH) | $(th_i)$ | 56 | 78 | 78 |
| | $(th_+)$ | 107 | 115 | 71 |
| (DH) | $(dh_i)$ | 133 | 127 | 75 |
| (AY) | $(ay_o)$ | 7 | 10 | -- |
| | $(ay_v)$ | 21 | 20 | -- |
| | $(ay_+)$ | 26 | 21 | -- |
| (ING) | | 00 | 06 | -- |
| (EH) | (ihr) | 12 | 14 | 14 |
| | (ehr) | 16 | 15 | 20 |
| (OH) | (ohr) | 24 | 21 | 26 |
| | (ɔhr) | 23 | 24 | 30 |
| | (ɔh) | 24 | 24 | 28 |

### Total Realizations of Consonant Clusters

| | | ~~K~~K | K~~K~~ | KK | ~~K~~K | K~~K~~ | KK | ~~K~~K | K~~K~~ | KK |
|---|---|---|---|---|---|---|---|---|---|---|
| (KKL) | $(D_{MM}K)$ | | 61 | 2 | | 66 | 7 | | 8 | 3 |
| | $(D_{MM}V)$ | | 7 | 7 | | 12 | 4 | | 3 | 5 |
| | $(D_PK)$ | | 21 | 2 | | 30 | 7 | | 9 | 5 |
| | $(D_PV)$ | | 3 | 10 | | 6 | 22 | | 0 | 4 |
| | $(Z_{MM}K)$ | | 2 | 4 | | 0 | 17 | | 0 | 4 |
| | $(Z_{MM}V)$ | | 0 | 2 | | 0 | 17 | | -- | -- |
| | $(Z_{PL}K)$ | 3 | 12 | 61 | 3 | 9 | 64 | | 0 | 6 |
| | $(Z_{PL}V)$ | | 2 | 31 | 7 | 1 | 38 | | -- | -- |
| | $(Z_VK)$ | | 17 | 4 | 1 | 40 | 12 | | -- | -- |
| | $(Z_VV)$ | | 12 | 0 | | 18 | 8 | | 0 | 3 |
| | $(Z_{POS}K)$ | | 3 | 1 | | 3 | 3 | | -- | -- |
| | $(Z_{POS}V)$ | | 1 | 0 | | -- | -- | | -- | -- |
| | $(Z_{ADV}K)$ | | 5 | 2 | | 9 | 16 | | -- | -- |
| | $(Z_{ADV}V)$ | | -- | -- | | 0 | 4 | | -- | -- |
| | (isK) | 38 | 0 | 1 | 39 | 2 | 1 | | -- | -- |
| | (isV) | 14 | 0 | 3 | 20 | 0 | 2 | | -- | -- |

in the individual interviews of a child by an adult, and (c) the style used in reading continuous text.[45] There are great differences in volume, tempo, pitch, and voice qualifiers used in the three styles. The phonological variables show a limited contrast for (a) and (b) and somewhat greater for (c). The data in column (c) is sparse since many of the boys read with great difficulty below the 2nd grade level.

[R]: there is no variation in the main bulk of r-less words, and the (her) class is solidly r-less as well. The (work) class shows a constricted r-like nucleus in the great majority of cases; the most important feature, as far as morphophonemic structure is concerned, is that word final //r// does not reappear before a vowel except in about fifteen percent of the cases for some speakers. Thus there is no alternation to support a morphophonemic representation of car as //kar//. The underlying form remains //ka//. In many cases intervocalic //r// is dropped within morphemes, though there is not enough information on this pattern at the moment.

(TH) and (DH): there is an extraordinary consistency in the (th$_i$) and (dh$_i$) levels shown by members of this group. In the group interview, for example, the individual (dh$_i$) scores are 122, 82, 157, 155, 150, and in the single interviews, 110, 73, 121, 150, 160. The level does not shift in the direction of the adult prestige pattern until reading style, where the mean (dh$_i$) drops from 127 to 75. (th$_i$) remains constant: it is (th$_+$), in bath, both, etc., which falls in reading style. However, the (th$_+$) index figures conceal the fact that there are two dimensions involved: interdental vs. labial, and fricative vs. stop. Shifts in several directions seem to occur in different styles, and more analysis is required here.

Despite the high level of (TH), we have little evidence of a merger of /d/ and /ð/, or /t/ and /θ/, or /f/ and /θ/. There does not seem to be any hypercorrect tendency for the stop classes--tin, den, etc.--to shift towards fricatives, or for the fricative classes--laugh, leave, etc.--to shift to interdentals in careful speech.

(AY): although means of achieving reliability with the (AY) index remains to be perfected, it is clear that most speakers differentiate (ay$_o$), with a definite front up-glide and short nucleus, from (ay$_v$) and (ay$_+$) which consistently show a lengthened nucleus and weak glides.

(ING): there is an extraordinary consistency in the use of the [ɪn] variant, although the children are well aware of the significance of [ɪŋ]. The only occurrences of [ɪŋ] in the group interview are in the phrase "Testing, one-two-three testing," which some of the boys tried out on their microphones. Evidence from more recent interviews shows that (ING) values do rise appreciably in more formal styles.

(EH): a comparison of the values of (ihr) and (ehr) shows that these classes have merged for some speakers, and remain~~s~~ separated for others. In all cases, there is more tendency for a merger than we find in standard English of the schoolroom, and the merger seems to be reversed in reading style.

(KKL): the evidence in this area is quite extensive, and shows a clear-cut differentiation of phonological and grammatical rules in some cases. This primary group shows a high degree of uniformity in their treatment of the various sub-variables.

In monomorphemic forms, consonant clusters ending in //D// ($D_{MM}$) are regularly simplified before following consonants. The evidence on the effect of following vowels is not yet solid, but it is clear that the vowel has some effect in promoting the realization of these final elements. Individual Thunderbirds differ in the underlying morphophonemic representation of particular words. Where the /t/ or /d/ represents the past tense morpheme, ($D_P$), the evidence for phonological simplification rather than grammatical simplification is sharper than in the exploratory interviews with adults cited above. Before a following consonant, this cluster was simplified in fifty-one cases, and retained only in nine. Before a following vowel, it was simplified in nine cases, and preserved in thirty-two. This is clear and conclusive evidence that we are dealing with an -ed morpheme, and the morphophonemic alternation is (a) phonologically conditioned by a following vowel and (b) morphologically conditioned by recognition of the grammatical boundary.

The situation with the (Z) clusters, is more complex. In ($Z_{MM}$) such as six, box, etc., we find only one individual who shows any tendency to simplify. In the individual interviews, there were no simplified clusters at all in seventeen cases before consonants, and in seventeen cases before vowels. There is some tendency to simplify the S/Z clusters when they represent a plural suffix ($Z_{PL}$), but the tendency is strongly towards preservation of the plural. There is clear cut phonological influence in the effect of the following vowel.

The pattern is exactly the reverse when the //Z// represents a third person singular inflection ($Z_V$). There is a strong tendency to simplify this cluster, but the evidence shows that it is not a phonological rule at all--that it is not, in fact, a cluster. Thus in the group interview, there was no final //Z// in 17 out of 21 cases before a consonant, and in 12 out of 12 cases before a vowel! This reversal of the phonological conditioning shows that we are dealing with a grammatical rule, and that simplification of consonant clusters is almost irrelevant. For these pre-adolescent speakers, there is an abstract grammatical system in which we find no third person singular //Z// at all. In careful speech the evidence is not so sweeping, but it is in the same direction.

There are not many examples of the possessive //Z//, but it is clear that here too there is an underlying grammatical difference where an overt possessive marker does not exist. There is considerable variability in the case of the adverbial //Z//, with some final //Z// remaining and others not.

The simplification which takes place in the case of //Z// representing is is a purely phonological feature which follows entirely different rules from those indicated above: the principle simplification is the loss of the first member of the cluster. The grammatical signal remains in forms such as tha's [ðæs], which are almost the only type to be found.

## Isolation of the Syntactic Variables

Table 1 showed the relatively high frequencies of gross syntactic deviations from standard English for Negro subjects of the Lower East Side Survey. The grammatical patterns which lie behind these deviations are not characteristic of a particular local or regional dialect; we find similar patterns in our exploratory interviews in the Negro communities of Harlem, Chicago, Cleveland, Philadelphia, Boston and South Carolina. To isolate the syntactic variables which are most significant in these patterns, three basic steps are required:

1. To specify the exact distribution of the deviant forms in terms of immediate syntactic environments.

2. To show what rules of standard English grammar are different from rules required for these deviant forms.

3. To write the simplest and most general form of the rule which will describe the behavior of the speakers being studied.

This work is not as far advanced as the phonological investigations outlined above, but certain major variables can be described briefly.

A. Person-number agreement in the verb. In the case of the regular verb, we are dealing here only with the morpheme //Z// which appears in the third person singular. In a great many cases, we could associate the absence of this final consonant with the simplification of consonant clusters, but in the case of many common verbs the //Z// directly follows a vowel: say, see, go, etc. We may ask if there is any evidence for a phonological rule which would delete /s/ to produce he go, or he say. In the section on phonological variables, there was some discussion of a tendency to delete final //t, d, l, r// and other apical consonants. Final //s, z// should be included in this list of apical consonants, and there is some reason to think that we are dealing here with the phonological process which is generalized to include all apical consonants.

It would seem at this point that it would be difficult to distinguish between a phonological argument and a grammatical one, since the great majority of English inflections are apical consonants. This applies to the condensed form of the future, plural, possessive, verbal agreement, the past tense marker, the comparative, and (for the speakers) the progressive and nominalizing--ing in the suffix. There is, however, one major exception to this rule and that is found in the first person singular in the verb to be: I'm. This is the one form of the verb to be which remains constant for most speakers that we have studied, while all other forms disappear.

| | |
|---|---|
| I'm tired | we tired |
| you tired | you tired |
| he tired | they tired |

There is no general rule for deletion of final nasals, nor of final labial consonants, and we therefore find that -m is unique among the forms of the copula. It is true that the consonant is frequently represented as a nasalization of the preceding vowel, but this nasalization is distinct enough to yield a grammatical signal. Therefore, person-number agreement is shown in the first person singular for the one verb to be.

If we explain the absence of the copula in he tired and he a policeman by an original grammatical rule without a copula, we still have not explained the absence of person-number agreement in the present. But an explanation based upon phonological processes views both sets of facts as superficial examples of the same underlying rules. This, of course, is an advantage for the phonological explanation, if it proves to be sound on other counts.

It is of course necessary that both explanationsbe carried to the end of their resources, since there is a great deal of variability in the data, and only a quantitative analysis based upon both models will suffice to answer the question. To say vaguely that both phonological and grammatical factors "interlock" would be of little value in proposing a structural analysis for practical teaching methods. If both processes are at work, it will be necessary to propose a model which states exactly how and in what way the rules precede each other or alternate.

Some striking evidence has already been given above for the "Thunderbirds" to show that this group of ten-eleven year old Negro boys shares a basic grammar with no third person singular -s at all in regular verbs. In the case of the verb to be we find three main possibilities: some form of is (including ain't); the form be; or nothing at all. The occurrence of be shows a wide range of variability in such phrases as:

How long that tape be out?
. . .if he be bad for five times. . .
. . .when I come up down South . .up here, dey don't understan' mak-- some time I be sayin'.
. . .when you don't be talkin' about someone else all the time.
the guys that. . .bes around the park with us, there's a leader of them.
So you know it all don't be on her; it be half on me and half on her.

In no case does the use of be approach the type of consistency which was found in the "Thunderbirds" for the absence of the third person singular -s. It might be argued that phonological processes which reduce is to a nullity might be responsible for the appearance of the nonfinite form be in the place of the copula. However, it will be necessary, to understand the use of this form, to state the conditions under which *be* is used. The most likely hypothesis is that *be* is used for general statements marked by such extra-verbal indicators as *always*, *sometimes*, and other markers of the general present indicating an habitual or characteristic situation. This is the case in all the several examples given above.

B. *The Preterite*. The many non-standard forms of the strong verbs of English which are listed in Atwood's *Verb Forms of the United States*[46] would not seem to represent sources of systematic interference in reading, nor do they appear to detract from the intelligibility of the speech of the subject being studied. The most characteristic area of preterite variation is that discussed above under consonant clusters--the simplification of clusters (or finals) of the -*ed* morpheme. The question posed above as a phonological problem is essential for syntactic analysis as well: does the absence of the //D// signal at the end of words such as *passed* represent a phonological or grammatical rule? The importance of this issue for reading will be discussed in the next section. However, from the point of view of the grammatical system, we cannot base any arguments for the existence of a preterite merely on the status of these -*ed* forms. We find that the great majority of the verb forms which occur in narration and other free conversation are irregular verbs in which the -*ed* ending is not at all necessary as a formal mark of the preterite: verbs like *told*, *held*, *felt*, *kept*, as well as *ran*, *came*, and so forth. The irregular weak verbs with internal vowel change present a difficult problem for analysis, since it is not easy to know whether the final /t/ in *kept*, *felt*, or the /d/ in *held* contains any information for the reader about the existence of a preterite. There are no speakers in our sample who do not use freely the irregular past forms *held*, *gave*, etc., but these intermediate forms may play a crucial role in analyzing the degree of significance attached by this speaker to the final consonant. For some speakers, the word *hold* is phonemically /ho/, for others it is /hol/ and for still others /hold/. The fact that some of these forms seem to obey the regular voiced--voiceless assimilation law like *told*, and others do not, like *felt*, is of little significance here, since a great many speakers show strong tendency towards voiced--voiceless assimilation or ~~less~~ neutralization at the end of words: *said* and *sat* are near homonyms or actually homonyms.[47]

C. *The Possessive*. The almost complete absence of the possessive in the natural speech of the "Thunderbirds," and other indications of this loss, would lead us to believe that this is a grammatical rule in which phonological arguments are not required. But the rule for possessive //Z// cannot be extended into the pronouns, since phonological rules play a part in forms such as *theyselves*, *they book*, etc. To describe *they book* as a grammatical rule with absence of a possessive morpheme would be absurd, since we have no evidence for parallel *I book*, *she book*, or *we book*. Only the two forms *your* and *their* are affected: They are plainly affected by the phonological rules for loss of final /r/, and monophthongization of ingliding vowels.

In addition to the well-known syntactic variables discussed above, we are engaging in systematic search through the exploratory interviews for all non-standard forms which showed any characteristic repetitive pattern which would mark them as evidence of a socially based structure. In general, it may be stated that the number of idiosyncratic variations in syntax which may be found in large bodies of natural speech has been grievously overstated in many accounts in linguistic literature.[48] The great majority of speakers of English whom we have interviewed in various projects described, both Negro and white, both educated and uneducated, speak in complete sentences which require relatively little editing. They do require the most minute type of careful transcription, since requirements for grammatical transcription are far more rigid than for accurate phonetic transcription[49]

D. Other non-standard syntactic features. There are a great many individual features which have been long recognized in dialect literature as common deviations from standard English in the syntax of Negro and Puerto Rican speakers. Many of these are isolated items, or if they are systematic, as in the free use of like, they may represent low level additions to standard syntax. In the case of ain't, it is necessary to determine whether the form can substitute for didn't and hasn't as well as isn't, but like so many of the items which have been frequent topics of discussion, there is no immediate indication of systematic interference with reading progress. The aim of our current research is to isolate those syntactic differences from standard English which are general, systematic and which might interfere with the process of learning to read.

## 9. Conclusions and Implications

The present preliminary project is designed to answer certain fundamental questions about differences in linguistic structure and linguistic function, and it is of course not designed to produce specific programs for the teaching of reading. Nevertheless, it is not necessary to wait for the completion of this project to draw useful inferences for applied programs of reading instruction. Even if the suggestions are tentative, they may serve to direct the thinking of reading teachers along lines which have been ignored in the past.

A. The effect of following vowels in realizing final consonants. Throughout this report, considerable evidence has been presented that many final consonants are realized phonetically when the following word begins a vowel This tendency is well-known in the case of /r/, but it has not been studied for final /l/, /t/, or the consonant clusters described above. This fact is particularly important in the case of final clusters ending in /D/ which signal the past tense morpheme, as in I have lived.

There is a strong tendency for teachers to present beginning readers with simple phrases, or individual words, in which these critical final consonants are followed by silence. This is an unfavorable environment for the child who does not normally pronounce the final consonant in this position, but who does pronounce it before a following vowel. Thus it is logical to consider introducing phrases such as passed over rather than passed; lived a long time rather than lived; eats a hot dog rather than eats the apple.

At the same time, it does not follow that a child can perceive intervocalic /t/ more easily than a clearly released final /t/. The first analysis of the perception tests described above indicate that clearly released final /t/ may be easier for the child to perceive (but more difficult to produce) than intervocalic /t/. (It should be noted that the /t/ which is pronounced finally by most of the children studied is not released, is often glottalized, and frequently replaced by glottal stop.)

The suggestion given above should therefore be seen in the context of the larger question as to whether perception training is an essential prerequisite to reading.

B. The information provided by final consonants. The loss of final consonants in clusters is of course only one aspect of the more general tendency for less information to be provided by consonants that follow the stressed nucleus of a syllable, than by initial consonants. The more general limitation on final consonants is a functional tendency which can be understood best in the context of a stochastic model. The probability of any given word-final consonant is clearly higher than most word-initial consonants, and final consonants therefore carry less information. In the speech of some subjects described above, final consonants have been reduced to a minimum. We find that a first approach to the analysis of reading mistakes shows a strong tendency to concentrate attention upon the first consonant, and utilize no information from final consonants. In contrast to this tendency, mistakes due to left-right confusion or metathesis of letters are a minor trend. These findings imply that substitution of final consonants in word frames (sap, sat, sack) may be given much greater prominence in a reading curriculum than in present programs, and possibly be introduced before substitution of initial consonants (tap, cap, pap).

In our preliminary examination of reading difficulties, we find many children with very limited skills of graphemic or phonemic analysis, who rely instead on sight recognition. There are many more such cases than examples of children who can puzzle out words analytically, but who recognize few words at sight. Therefore, the suggestion given above on reversing the present approach to teaching analysis assumes considerable importance. The evidence suggests that at a certain stage in the school program, many children lose confidence in the alphabetic principle: that is, they give up the code and rely upon an extraordinarily inefficient cipher.

C. The analysis of oral reading. Teachers must rely heavily upon the information drawn from oral reading performance in order to gauge the success of reading instruction and to correct mistakes. However, most teachers do not have the information that would allow them to distinguish between mistakes in reading and non-standard forms of pronunciation. For example, a child may read *both of them passed me* as [bofədɛmpæsmi]. In many cases, the teacher may correct him by saying "No, it's not [bofədɛmpæsmi], it's [boθ əv ðɛm pæst mi]." She has told the child that he read incorrectly. But he may have carried out the reading process quite accurately in this case; the only thing that the teacher is reacting to is that the child has a different phonetic realization of the morphemes in question, with contrasts that are different from those used by the teacher in standard English. The child may have correctly read and interpreted the word *both*, the word *them*, and the past marker *-ed*. The teacher's correction would then be incomprehensible to him, especially if he cannot hear the phonetic difference between the teacher's version and his own. If we add to his confusion, the confusion of thirty other children who may be listening, we can see the possibility of serious interference with the teaching process.

The principal investigator has had contacts with approximately 150 teachers of reading in the past six months. He has been unable to find any evidence that these teachers had been aware of this basic distinction between mistakes in reading and differences in pronunciation. Neither their own reading text books nor the reading instruction that they had received had prepared them to consider the distinction. Reporting common errors,[50] teachers did not attempt to distinguish among mistakes in reading, mistakes in pronunciation or even mistakes in spelling. It appears that the analysis of the child's deviations from standard English in oral reading has not formed a significant part of the reading teacher's program. Therefore, it will not be enough to provide data on the dialect differences between standard and non-standard; it will be necessary to teach this essential distinction so that the monitoring of oral reading will produce positive rather than negative results.

The investigation of the child's interpretation of the *-ed* morpheme in reading, as outlined above, will help to provide a base for this type of analysis in the future.

D. *Testing perceptual ability*. The standard tests now used in the schools to test the child's ability to distinguish speech sounds are not adequate for the urban areas we have been describing. They were drawn up without any concern or awareness for the differences in phonemic systems which prevail throughout American regions and across ethnic groups. For instance, Negro children will be marked down in such tests for their inability to distinguish final /θ/ from /f/, or /i/ from /e/ before /n/. But such an inability is normal for a child raised in a speech community in which such distinctions are not made. Most white children in the North are unable to distinguish /o/ and /ɔ/ before /r/, as in /hors/ vs. /hɔrs/, since these vowels have long since merged in this position in their area.

It is important that the Negro and Puerto Rican children who fail to make distinctions recognized in standard English should not be classified as individually defective through the use of such inadequate tests. Therefore, the data indicated in the present report may serve as the basis for new perception tests which may be utilized in urban areas.

E. What grammar to teach. The results of the structural analysis of non-standard English should enable us to focus upon those grammatical rules which are a] categorically different from standard English, and b] which interfere most seriously with the analytic skills needed in reading. Thus it should follow from the exploratory findings given above that the third person singular //Z// morpheme must be taught explicitly in class, along with the possessive //Z//; but the plural //Z// need hardly be taught as a grammatical rule. If the plural needs reinforcement, it would probably be in the form of phonetic rather than grammatical training.

In this approach, we would attempt to isolate the most general rule which is different in the language of non-standard and standard speakers, and teach that rule if it is relevant to the process of reading. There is some question whether such low-level rules as the merger of pin and pen need be taught as preliminary to reading. If the teacher is aware that the child has one set of homonyms that are distinct for her, she need not teach the distinction to teach reading. The total number of homonyms is very great in any case, and a few more or less cannot seriously affect reading skills. However, it will be essential for the teacher to know the social norms of the child's language, so that she can distinguish individual defects in perceptual ability from socially determined mergers; so that she can concentrate upon teaching essential grammatical rules that are necessary for interpreting written texts; and effectively analyze the child's oral performance as a guide to future correction.

## Notes

[1] See section 6 below, Related Research.

[2] That these deviations should be studied systematically, as sets of interrelated rules, is a fundamental presumption of the linguistic approach. At the same time, it would be absurd to consider writing a complete grammar of "Negro English." Such a grammar would be identical with standard English for the greatest part -- and no one has yet written a complete grammar of standard English.

[3] See W. Labov, "The Linguistic Variable as a Structural Unit," paper given before The Washington Linguistics Club, November 1964, (to appear.)

[4] Project Literacy Reports No 2, Ithaca, N. Y.: Cornell University, September, 1964. P. 3

[5] For a detailed discussion of non-cognitive functions of language, see Dell Hymes, "The Ethnography of Speaking," in Gruber, F., ed. Anthropology and Human Behavior, Washington, D. C.: 1962.

[6] The bulletin for New York City, Manhattan, was published in January 1963, and is based on 1960 census figures.

[7] New York Times, October 21, 1965.

[8] Columbia University dissertation 1964. To be published by the Center for Applied Linguistics, Washington, D. C.

[9] Phonological Correlates of Social Stratification;" American Anthropologist Vol. 66, Part 2. (1964), pp 164-176: "Stages in the Acquisition of Standard English," in Shuy, R. (ed) Social Dialects and Language Learning, Champaign, Illinois: National Council of Teachers of English, 1965. "The Mechanism of Linguistic Change;" Georgetown University Monograph Series on Languages and Linguistics No. 18, Washington, D. C., 1966.

[10] For proof of this contention, see Chapter XII of "The Social Stratification of English" ... cited above.

[11] W. Labov, "The Effect of Social Mobility on Linguistic Behavior," to appear in Sociological Inquiry.

[12] See "Stages in the Acquisition of Standard English," cited above.

[13] Melvil Herskovits, The Myth of The Negro Past, Boston: 1960.

[14] Lorenzo D. Turner, Africanisms in the Gullah Dialect, Chicago: 1949.

[15] Beryl L. Bailey, "A Proposal for the Study of the Grammar of Negro English in New York City," Project Literacy Reports No. 2, Ithaca, N. Y.: Cornell University, 1964, p. 19.

[16] John J. Gumperz, "Linguistic and Social Interaction in Two Communities," American Anthropologist Vol. 66, No. 6, Part 2, 1964, pp 137-53.

[17] The bulk of the exploratory interviews were conducted by C. Robins in Harlem, and W. Labov in other areas. The interview techniques were developed by W. Labov, C. Robins and J. Waletzky.

[18] These interviews took place in the Board of Education Public School Vacation Day Camps, in which the school gym, yard and rooms were used for recreation centers.

[19] We are indebted to Dr. Samuel McClelland, Director of the Bureau of Educational Research, New York City Board of Education, and Assistant Superintendent Thomas Van Sant for permission to interview children in the Board of Education Day Camps, and also to the superintendents of the various camps who gave us complete cooperation in carrying out this program.

[20] Dr. James Jones and Miss Patricia Carter, of the Research Division of HARYOU-ACT, gave us invaluable assistance in setting up this sample.

[21] In addition to the bias introduced by the school-room environment, there was a selective factor in the choice of informants within each center. Where possible, subjects were selected randomly from the registration lists, but most centers were not so highly organized that one could rely on finding a given boy at a particular time. The series of interviews was completed by interviewing boys in the age range 10--12 who were present at the center at the time.

[22] We are deeply indebted to Mr. Zell Ingram, of the Children's Aid Society, director of The Stephen Foster Center, for his kind assistance in carrying out this program. We are also indebted to Mr. Theodore Gross and Mr. Richard Jordan of The Stephen Foster Center.

[23] The group was recorded with a Sennheiser Omnidirectional Condenser Microphone No. 104, on a full track Nagra III BH. The individuals were recorded with RCA BK6B Microphones, on a Nagra III BH, Sony 260, and Uher 4000-S recorders.

[24] Just as the subjects must be conditioned to the use of taboo words in the interview situation, they must also be reconditioned against the spread of this permissive attitude to formal school situations.

[25] In a strong answer to the question, "Were you ever in a situation where you thought you were in serious danger of being killed,"

a 70-year old Negro man gave this reply: "I remember one time that a , in the south, that a police came along and whenever they wanted some farm hands they'd round up a so-called Negro community and lock up everybody that wasn't workin' and put a charge against them for vagrancy and I were put into the wagon and taken to the station house, and while in there, I were, said something to the policeman and he began to beat me, and in beating me I thought, at that time, that I was going to die and here's what he done...he knocked my eye out and since then I've been trying to find some white man that I could love. This have never left me, I can never forget it...I hope someday that I will be converted to think that a white man loved me as a human being, and when I say human being, that he would recognize me according to my being human, like he is, and that is the only time that I can remember that I was on the verge of being killed, just for askin' a white man a question. What the hell are you carrin' me to jail for? That was the question."

[26] Walter B. Miller, "Lower Class Culture as a Generating Milieu of Gang Delinquency ' The Journal of Social Issues XIV: pp. 5-19, 1958.

[27] In first exploratory interviews, 9-year old boys were also included but it was found that the total volume of speech they produced was much less than 10-year olds, and other indications suggested that 9-year old boys did not participate fully in the culture upon which this schedule was focussed.

[28] One of our informants was known as Boo, and most of his friends refer to him as /bu/ in the peer group sections of their own individual interviews. After sometime, Mr. Cohen noted that the form of this name usually ended in a glottal stop, [buʔ] and his supposition that the name was actually Boot was confirmed when the boy showed up at the second interview in sneakers with ~~the name~~ Boot stenciled across the toe. This incident illustrates that the functional value of final stops is extremely low in this phonological system, and the dropping of final /t/ and /d/ in morphemes is more than an occasional tendency.

[29] All text is typed with an 18-point primary grade typewriter, to give the most possible assistance in reading.

[30] The use of read in sentences 6, etc., was originated by Joshua Waletzky.

[31] A certain number of intermediate cases which may be transcribed [ᵊ̣] are found, and these are indicated as (R-1/2). In the speech of most white New Yorkers, and most Negro and Puerto Rican New Yorkers, this form is quite infrequent and may be neglected; but in other areas, such as Philadelphia, or for some southern speakers, this form is quite frequent in careful speech, and is averaged with the other values with a numerical value of 1/2.

[32] A third environment of (TH) and (DH) must be segregated, the medial position in either, bother, father, brother, etc. The occurrence of stops and fricatives in this position appears to follow a different distribution from the other two positions, and since sufficient data is

available for the other cases, this material was not included in the present study.

[33] See the case of Nathan B. in Chapter VIII of "The Social Stratification of English in New York City," cited above.

[34] See Eva Sivertsen, *Cockney Phonology*, Oslo, 1960, p. 124.

[35] In addition to the values above, it is common to find a 0 value of (TH) and (DH), often indicated in dialect literature as '*at* and '*ere* for *that* and *there*. At present, these values are given the numerical rating of 2, and averaged with the rest.

[36] See J. L. Fischer, "Social Influences on the Choice of a Linguistic Variant," *Word* 14: 47-56, 1958.

[37] In the second group interview with the Thunderbirds, the only instances of (ing-1) were in the occasional phrase that the boys muttered into the microphone; "Testing, one, two, three, testing."

[38] Half of these were dependent upon the -*nts* case which is quite unreliable, since it is almost impossible to detect the difference between [-nts] and [-ns].

[39] In the midst of my interview with this subject, the telephone rang. I had just turned over a forty-five minute tape and the informant was wearing BK6B lavaliere microphone, hooked up to the Nagra tape-recorder. As she began to answer the telephone, I took her nephew into another room and asked him questions in a low voice. The informant apparently did not realize that the laveliere microphone was still around her neck, and hearing the interview proceeding in the other room, she felt no pressure from me to shorten her conversation. As a result, I obtained an invaluable--and probably unique--record of intimate family conversation. For twenty minutes, DR spoke to one of her close relatives about family affairs in North Carolina; she had a great deal to report, since she had just spent the summer there taking care of her father, while the female head of the household underwent an operation.

[40] Although this is a phonological rule, it is not a particularly low level rule. It is not necessary that the following vowel occur in a phonetic sequence without pause or delay; in many cases, it is apparent that a considerable pause can intervene before the end of one word and the beginning of the next, without the following vowel losing its effect upon //r//. Furthermore, we sometimes find that a glottal stop intervenes, and yet speakers will insert [r] in this position, and no other: [fɔrˀəklɑk].

[41] An important class of past irregular verbs is not included here: *heard*, *told*, *felt*, etc., where the /d/ or /t/ may or may not function as a past signal, since the vowel change of the stem effectively signals the tense. These past irregular verbs are extremely common in conversation, especially narrative, and it is apparent that they carry much of the

burden of the past tense signaling. A more complete analysis of these problems will require a separate tabulation of these forms.

[42] This informant was interviewed in the Youth House series; he was raised in a small town in North Carolina, and came to New York only six months before the interview. He could not read at all, even at the first grade level.

[43] See Eva Sivertsen, Cockney Phonology, Oslo, 1960.

[44] In one particular case being studied, a teen-age Negro girl from Chicago was asked whether she had found out her father's name, and she answered [a: fa:nd a:t] which is interpreted by most listeners as "I found out." The speaker was actually saying "I'll find out."

[45] The limited style shift in continuous speech for pre-adolescent children is consistent with the Lower East Side data in "Stages in the Acquisition of Standard English" cited above. Working class and lower class children show little ability to follow adult norms of careful speech until their late teens.

[46] E. Babgy Atwood, A Survey of Verb Forms in the Eastern United States, Ann Arbor: University of Michigan Press, 1953.

[47] The loss of significance of voicing at the ends of words is an extension of the general tendency in English to provide less information in this position. At the same time, significant inferences can be drawn from the distribution of the told, felt class in respect to consonant cluster simplification. If the past tense is effectively signalled by the vowel change, and semantic function is an important factor in the sound changes taking place, then the told, felt class should show greater tendency toward the loss of the final consonant at the phonetic level.

[48] It is possible that this overstatement is due to the fact that the data examined were transcriptions of the proceedings of learned meetings, where the degree of syntactic embedding is greater than in normal speech. There is relatively little material available which represents an accurate transcription of the language of working class people.

[49] In phonological analysis, one may neglect marginal and unclear utterances because a large number of clear cases are available for transcription. Since examples of many syntactic forms are rare, each utterance must be transcribed exactly; critical decisions may depend upon the presence or absence of a back unrounded glide. The functional apparatus of the auxiliary, prepositions, and even adverbs are precisely those forms which show morphological condensation, and which require the most painstaking phonetic transcription.

[50] Much of this information was obtained from an assignment given to 80 teachers of reading who were students at the Western Reserve Summer Reading Institute in August, 1965.